NATURAL RESOURCES

A Wildland Fire Protection Program for Washington

Phase II

Pathway to 2020

April 2006

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Doug Sutherland - Commissioner of Public Lands

Acknowledgements

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The Honorable Senator Ken Jacobsen, *Chair, Natural Resources, Parks and Shorelines Committee*
The Honorable Senator Margarita Prentice, *Chair, Ways & Means Committee*
The Honorable Representative Helen Sommers, *Chair House Appropriations Committee*
The Honorable Representative Brian Sullivan, *Chair, Natural Resources, Ecology and Parks Committee*
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Both the Phase II, *"Pathway to 2020"* and the *"Strategic Plan for Wildland Fire Protection"*, Phase I, are available from:

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Internet
http://www.dnr.wa.gov/htdocs/rp/fire_strategic_plan/index.html

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WASHINGTON STATE DEPARTMENT OF
Natural Resources

DOUG SUTHERLAND
Commissioner of Public Lands

April 21, 2006

Strategic planning is a powerful management tool. In developing the *Strategic Plan for Wildland Fire Protection*, we set out to develop a future-oriented plan that operates with the premise that the future can be created by the actions we take today.

This document—*Pathway to 2020*—reveals the process of developing that strategic plan. It contains the background and in-depth analyses used to evaluate not only where we are today but looks carefully at the forces that are creating the future.

The Strategic Plan itself is dynamic, calling for periodic reviews that test the accuracy of our forecasts of the future and the actual results of our implementation efforts. Changes in macro-economic forces, societal needs and climate could also prompt changes to the strategic direction in the plan.

Pathway to 2020 not only contains the strategic plan, but also provides the framework for a structured implementation plan that uses continuous monitoring and feedback to help establish clear priorities, identify problems and craft solutions.

DNR is committed to making timely changes in a manner that is respectful of the diversity of opinions and interests. Clear, workable solutions to wildland fire protection will emerge from our exercise of sound judgment and bias for action and innovation.

Sincerely,

Pat McElroy
Executive Director of Regulatory Programs

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A Wildland Fire Protection Program for Washington

Phase II

Pathway to 2020

April 2006

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This document, *"Phase II, Pathway to 2020"*, is part of the *"2006 Strategic Plan for Wildland Fire Protection, Phase I,"* on non-federal lands in the State of Washington. This document contains substantial background and in-depth analyses not contained in the Strategic Plan but were instrumental in the development of the Strategic Plan.

"The Strategic Plan for Wildland Fire Protection" was collaboratively developed with the help of an external Advisory Committee.

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Doug Sutherland - Commissioner of Public Lands

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Introduction
Pathway to 2020

Twenty years ago, the Department of Natural Resources (DNR) conducted the last comprehensive evaluation of wildland land fire protection. Since then, much has changed. This document contains substantial background and in-depth analyses of the changes, identifying trends and issues that will shape the future of Washington and the state's wildland fire protection on non-federal lands in the State of Washington.

In response to our understanding of the future and our preferences for the future, a Strategic Plan was collaboratively developed, working with an external Advisory Committee. This document, Phase II, Pathway to 2020, is part of the 2006 Strategic Plan for Wildland Fire Protection, Phase I.

Our work started with the identification of eight key policy questions.

1. *How can forest health principles be used to reduce the costs and impacts of wildfire?*
2. *What are the appropriate roles of prevention, community assistance and education in the overall program?*
3. *How can we provide appropriate public safety for the substantially increased population while continuing to suppress wildfires?*
4. *What are the appropriate roles for the various firefighting partners?*
5. *How can we improve training and recruitment to provide the necessary human resources?*
6. *What is the best role for contractors?*
7. *How should "all-risk" incidents, inside and outside of the State, be addressed?*
8. *In the process, are there legislative changes that would increase efficiency and effectiveness of fire protection in Washington?*

The answers to these questions are here. The answers and our sense of the future shaped the Strategic Plan.

Executive Summary

Wildfire[1] has always played a big role in the forests of the western United States. What has changed is the risk — to public safety, private property and the quality of life; risks have compounded due to more homes in and around forests and to the deterioration of forest health. In the state of Washington, there is also sense that the risks will only increase unless there are fundamental changes, changes that must involve many people.

In Washington, the state Department of Natural Resources (DNR) is charged with protecting state and private forests from fire. This report documents the DNR's development of a strategic plan for Wildland Fire Protection.

Why a Strategic Plan?

The last comprehensive look at DNR's fire program was completed in 1986. Although some of the key issues and concepts from that study, including "better protection, improved response and lower cost," are still relevant today, much has changed in the 20 years since it was published.

Some of those changes are reflected in information from two recent efforts—a statewide Strategic Plan for Healthy Forests, completed in 2004, and the Joint Legislative Audit and Review Committee (JLARC) Fire Suppression Study, completed in 2005. These reports provide significant information about forest health and firefighting on the more than twelve million acres of forestland protected by DNR. They also show the real connections between forest fires and forest health and what that means to the people of Washington.

The direct and indirect consequences of wildfire on the people in the state, and the state's economy and environment are real. Understandably, this results in heightened policy concerns regarding

[1] To help understand terminology, the following definitions will apply:
Wildland Fire - any vegetation fire that occurs in the wildland that may or may not involve structures;
Wildfire - an unplanned, unwanted wildland fire; and
Prescribed Fire - any wildland fire, planned or unplanned, used to meet specific objectives and is within an established prescription.

wildland fire protection and how, when and where wildfires are fought... and who does the important and potentially dangerous work.

In part, the policy concerns about wildfire protection are created by the interaction of the following inter-related factors:

- Public safety;
- Overlapping protection jurisdictions and interagency relationships
- Population of the state that is increasing both in numbers and age;
- Proliferation of homes in the forests and in the wildland urban interface;
- Changes in climate;
- Drought;
- Increased fuel loading;
- Changes in forest ownership patterns and landowners' management objectives;
- Costs of firefighting;
- Firefighter safety;
- Training, recruitment and retention of specialized skills;
- Smoke management and air quality implications to public health;
- Forest health shifts resulting in forests that are generally less resistant to uncharacteristic, economically or environmentally undesirable wildfire, windstorm, pests, disease and other damaging agents; and
- Forests less able to recover following biological or environmental disturbances.

A Strategic Plan was needed to evaluate these interactions and answer eight key policy questions:

1. *How can forest health principles be used to reduce the costs and impacts of wildfire?*
2. *What are the appropriate roles of prevention, community assistance and education in the overall program?*
3. *How can we provide appropriate public safety for the substantially increased population while continuing to suppress wildfires?*
4. *What are the appropriate roles for the various firefighting partners?*
5. *How can we improve training and recruitment to provide the necessary human resources?*
6. *What is the best role for contractors?*
7. *How should "all-risk" incidents, inside and outside of the State, be addressed?*

8. In the process, are there legislative changes that would increase efficiency and effectiveness of fire protection in Washington?

The answers to these questions provide a framework for change. Proposed changes include but are not limited to the following:

- The laws and rules in the State of Washington that govern wildfire, forest health and land-use;
- Funding mechanisms and funding levels for various programs;
- Equitable partnerships to achieve forest health and wildfire objectives;
- Accountability for individual and organization actions; and
- DNR policies and administrative practices.

The Planning Process

To develop a new strategic plan, DNR first clarified its mission and values concerning wildland fire protection, and considered (based on current trends) what Washington's social and physical landscapes are likely to look like in the year 2020—the probable future. Guided by these three elements (mission, values, probable future), DNR then forecasted a future that can be created through strategic action—the preferred future. The Preferred Future in 2020[2] is the basis for the Goals, Objectives and Strategies that make up the heart of the plan.

DNR formed an Advisory Committee of informed individuals representing diverse interests, to help the department's Internal Work Group prepare the plan. Members included elected officials such as legislators on key committees, county commissioners and fire district commissioners; landowner associations; tribal interests; state agencies and non-governmental organizations.

The Strategic Plan started with a focus on wildfire suppression. Quickly, it became clear that a broader view was necessary. The focus changed to wildland fire protection, the interaction between forest health, wildfire readiness, wildfire prevention and wildfire suppression.

[2] Please see Appendix I for the complete text.

Summary of Plan and Recommendations

The plan identifies 6 Goals that are supported by some 34 Objectives, along with 134 Strategies that specify the means to accomplish specific Objectives.

- **Safety Goal:** Providing safety for the public and those engaged in firefighting and prescribed fire is paramount;
- **Forest Health Goal:** Create landowner capability and public desire to improve or maintain forest health to allow efficient and effective wildfire protection;
- **Responsibility and Authority Goal:** Landowners, communities, governmental entities and the public acknowledge and fulfill their wildfire protection responsibilities;
- **Partnership Goal:** Enhancing the state's wildland fire protection efficiency and effectiveness through collaborative partnerships;
- **Wildland Protection Goal:** Protecting Washington's forests to maintain economic, ecological and social values such as viable forest industries, watersheds, community stability, wildlife habitat and a sense of place; and
- **Financial Goal:** Forest protection is achieved at the lowest net cost to taxpayers and landowners.

After review by the Commissioner of Public Lands and acceptance or modification of the Strategic Plan, the DNR will develop an Implementation Plan. The Implementation Plan will establish in internal structure that will identify a large series of enabling actions and time lines to ensure accountability while developing performance measures.

DNR will continue to work with outside interest groups and our employees to listen and understand before major strategic actions are taken.

What is New for Wildland Fire Protection

There is a focus on the future. Understanding how today's actions can shape the future of wildland fire protection is the basis of the Strategic Plan. A rigorous Implementation Plan, a commitment to

continuous improvement and frequent reviews of critical strategic assumptions about the future and the present will reduce risk and increase effectiveness.

- **Focus on forest health:** Forest health and fire are closely connected. Based on the ecology of Washington's forests, our understanding of the role that fire plays in healthy forests is increasing. A forest's ability to withstand stresses such as drought, fire, insects and diseases is directly affected by complex interactions of many biological and non-biological factors.
- **Focus on lowest net costs:** A net cost framework provides a starting point to evaluate different solutions. Solutions will recognize the various types of risk and the net effect of resources while acknowledging the different parties at risk. Understanding risks from forest health and wildfire will create a true forest protection program which better protects people and the environment they value.
- **Focus on avoided costs and non-market values:** There are substantial savings for taxpayers and the public when fuels reduction projects are completed. Substantial costs can be avoided when both market and non-market values[3] are part of wildland fire protection decisions.
- **Focus on personal and institutional responsibilities:** Decisions by individual property owners and land-use or other regulatory authorities can reduce costs and risks to private property and the public. Current state law does not require universal fire protection, creating tension both for property owners and those who provide fire protection services. Fire protection should be required for all land in Washington.

[3] The summary of the research appears in the DNR's December 2004 report, *"A Desirable Forest Health Program for Washington's Forests", Appendices 4 & 5* at http://www.dnr.wa.gov/htdocs/rp/forhealth/fhswgc/foresthealthreport.pdf. To view the complete report *"Investigation of Alternative Strategies for Design, Layout, and Administration of Fuel Removal Projects",* College of Forest Resources, Rural Technology Initiative, University of Washington, July 2003, go to www.ruraltech.org.

Chapter 1
Introduction and Background

Wildfire historically has—and for the foreseeable future will have—significant impact on the quality of life in Washington State. After all, this is the Evergreen State —forests are a signature resource (about half of Washington is forested), and wildfire is a major factor in creating and maintaining the Washington forests we know and love.

In Washington, the Department of Natural Resources (DNR) is the state agency charged with protecting private and state forestlands from wildfire. DNR currently protects about 12.7 million acres, more than half of the state's 21.8 million acres forested acres.

It has been 20 years since the last strategic review of wildfire efforts on state-protected lands. Then, the Forest Fire Advisory Board Subcommittee conducted the review. Some of the issues identified in its 1986 report, DNR Fire Control Program Review, are still relevant today. For example, the transmittal letter by John Keatley, Subcommittee Chairman, notes that there are some key concepts, "better protection, improved response and lower cost."

In 1997, the Tri-Data Review, funded by the Legislature, looked at near-term tactical and budget issues, making useful but limited recommendations that were later implemented.

Since those studies, much has changed, and there are significant questions to be answered—from the appropriate funding levels and funding mechanism to the appropriate mix of fire prevention, pre-suppression and suppression activities. It is time to look at the current legal structures, partnerships and forest health. The roles and expectations of Washington's wildfire partners need clarity. At a very basic level, how do forest health issues affect the effectiveness and efficiency of Washington's wildfire policy?

Through developing a new strategic plan for wildland fire protection DNR has attempted to answer such questions. To understand how wildfire protection might be done differently both today and tomorrow, DNR carefully evaluated a number of key factors.

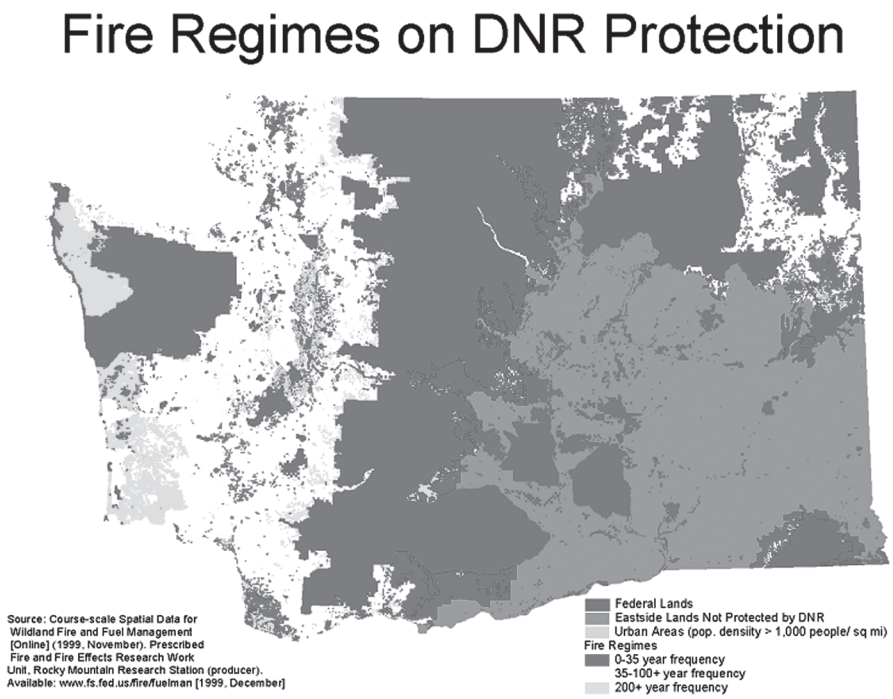
This report, Pathway to 2020, contains the results of those efforts, including the Strategic Plan itself. The comprehensive evaluation of current law, policy and operations produced new wildland fire protection proposals; the results are significant changes in the direction of wildland fire protection on state-protected forestlands.

The Strategic Plan also calls for a different balance of suppression efforts, prevention efforts and investments in forest health. Current State General Fund investments in the Resource Protection Division's Forest Health budget are about 1/2 percent of the Division's total budget.

History - fire and protection

Forest fires are an integral part of Washington's landscapes. Fires, small and large, have shaped the state's forests for millennia. Dendro-chronologists and other researchers have documented high carbon values indicating numerous forest fires long before European occupation. The log of Captain Robert Gray documented vast burns and active fires that obscured the coast from the sea. East of the Cascade Range, fire occurrences are more common and more obvious. The fire re-occurrence cycles (regimes) are generally shorter than those found in western Washington, as shown in Figure 1.

Figure 1— Natural Fire Regimes on State-Protected Lands in Washington



By the mid-1800's and the early 1900's, settlers had begun extensive land clearing and timber harvesting. Enormous and uncontrolled wildfires swept the state. Names like the Yacolt burn, the Forks fire and the Entiat fire are familiar to historians. These three fires burned well over a million acres and billions of board feet of timber and caused substantial loss of life and property.

Prompted by large fires in Washington and elsewhere, the Legislature acted. The first 17 years of the 20th century marked Washington's initial attempt at organized forest fire protection. A compulsory state fire control law was enacted in 1917. The law required each forest landowner to provide acceptable fire control and prevention for their forestland or pay an "in lieu" annual per-acre fee for this service to be provided by the state. Forest landowners were also required to abate slash hazard conditions or be charged for abatement costs.

The federal government also was, and is, active in federal lands protection and cooperative fire control with the states. The 1911 Week's Act (16 USC 564-570) provided each state with a regular federal forest fire protection allocation. The importance of forests and forest products to state and national economy was recognized in the 1943 Clarke-McNary Act (16 USC 500, 513-522, 563), which broadened the fire protection portion of the Week's Law. Sponsored by state foresters and the Forest Service, the 1950s Smokey Bear Program launched an intense public awareness campaign for wildfire prevention.

Protection today - the Department of Natural Resources

The Washington State Department of Natural Resources (DNR) is the state's fire department for fires on private and state-owned forestlands. Currently, DNR is responsible for protecting 12.7 million acres of the roughly 22 million forested acres in the state. Of the forestlands DNR protects from fire, 10 million acres are privately owned, just over 2 million acres are state-owned forestlands, and the rest are a portion of tribal lands. The federal government is responsible for protecting roughly 10 million acres.

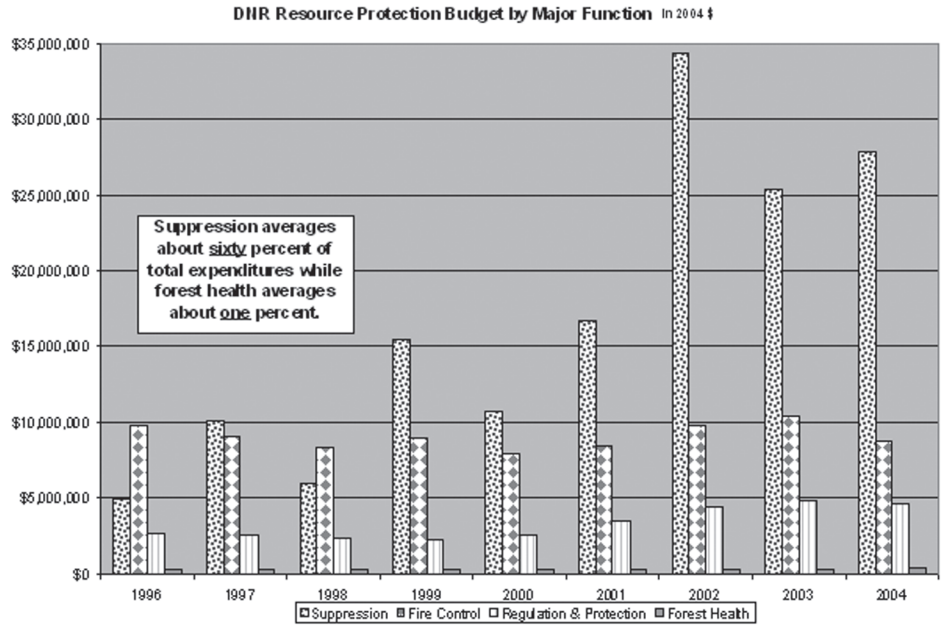
Through Chapter 76.04 of the Revised Code of Washington (RCW), the Washington State Legislature has provided direction to DNR for its fire protection role. Specifically, RCW 76.04.167(2) defines the primary fire protection mission of DNR as the protection of forest resources and suppressing forest fires, second only to saving

lives. The Legislature has directed DNR to aggressively suppress wildfires. In addition, it defines the primary mission of rural fire districts and municipal fire departments as protecting and suppressing structural fires. See Appendix A.

The 1971 Legislature established the Forest Fire Advisory Board (RCW 76.04.520). The Board is charged with overseeing the DNR fire program and making recommendations to DNR management. Seven members, appointed by the state's Commissioner of Public Lands, represent private and public forest landowners on fire-related issues such as prevention and suppression rules, expenditures, assessments and operational policies.

Different parts of DNR's resource protection programs are funded in various ways, and funding levels vary from year to year. Figure 2 shows how the level of funding for the major components of DNR's program has varied from 1996-2004. For additional details see Appendix A. The imbalance between the various components is striking.

Figure 2 - Funding for DNR Resource Protection Division



Recent Studies

Development of the strategic was facilitated by two recent efforts: the Joint Legislative Audit and Review Committee (JLARC) *Fire Suppression Study*, completed in 2005, and a statewide *Strategic Plan for Healthy Forests*, completed in 2004. These reports provided significant information about forest health and firefighting on the more than twelve million acres of forestland protected by the State. They also show the real connections between forest fires and forest health and what that means to the people of Washington.

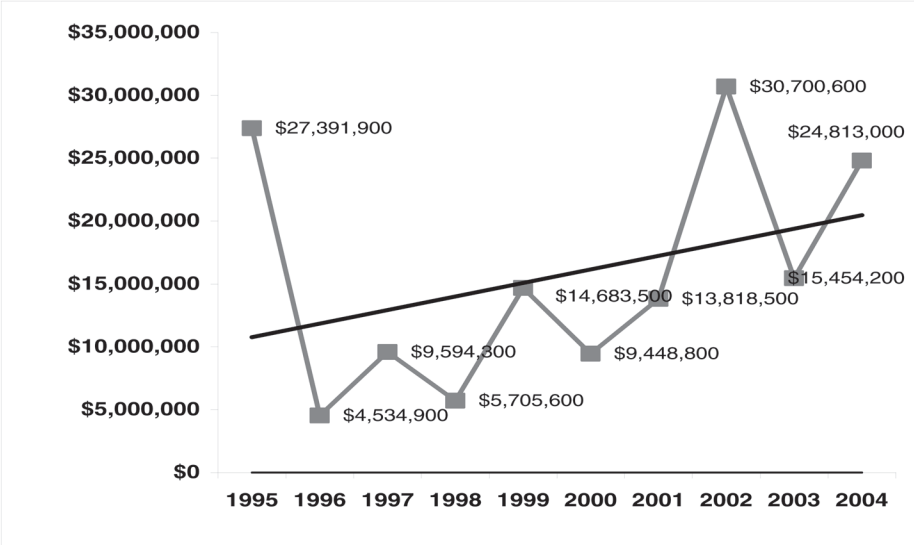
Joint Audit and Legislative Review Committee Report

The Joint Legislative Audit and Review Committee (JLARC) carries out oversight, review, and evaluation of state-funded programs and activities on behalf of the Legislature and the citizens of Washington State. In June 2005 JLARC issued its Fire Suppression Study, Report 11-05. In its analyses, the Committee raised a number of legal, policy and operational questions about the increasing suppression costs, as noted on Figure 3. DNR is actively working with JLARC to address the Report's findings. The full JLARC Report is available on-line at: http://www1.leg.wa.gov/reports/05-11.pdf.

Many of the issues and tensions identified in the JLARC are some of the most important factors analyzed in this document and the Strategic Plan. In particular, the balance between the various resource protection components is raised in the JLARC Report.

> *"There is a very direct connection between being ready to fight fires (pre-suppression) and the ability to fight those fires (suppression). There may also be a connection between various mitigation and education efforts (prevention) and suppression costs. But because of the way policymakers review budgets, this connection may not be obvious."*

Figure 3 — State Funding for DNR Wildfire Suppression is Growing
(Controlled for Inflation)



Source: JLARC analysis of DNR budget submission data: some years include Disaster Response Account expenditures.

The Strategic Plan and this Resource Protection Report is a call to re-balance the expenditures with the policy objective of achieving lowest net cost to the taxpayers and landowners.

2004 Strategic Plan for Healthy Forests

Second Substitute Senate Bill 6144 directed Doug Sutherland, Commissioner of Public Lands to develop a statewide plan for increasing forest resistance resilience to disturbance agents. The Act also created a diverse Forest Health Strategic Work Group that developed the plan. The Work Group produced a 2004 report, *"A Desirable Forest Health Program for Washington's Forests."* The Work Group Report can be found at http://www.dnr.wa.gov/htdocs/rp/forhealth/fhswgc/foresthealthreport.pdf.

The Work Group created ten Findings and Recommendations, ranging from developing forest health risk thresholds to the coordinating regulatory programs. Beyond the specific Findings and Recommendations, the Work Group asserted the following key principles and facts:

- "... Achieving satisfactory forest health outcomes is a shared responsibility between landowners and the public." (page 4)
- "...the keystone to achieving forest health across all ownerships in Washington is that well managed forests are healthy forests." (page 6)

- "Recognition that appropriate funding/investment today will avoid increased costs in the future while at the same time providing many non-market benefits to society." (page 6)
- "Fire suppression costs are rising due to extreme fire behavior caused by high fuel loads and increased tactical complexities when homes and structures are intermixed with forest. ... Fire prevention continues to be a very important component of an overall strategy, but activities that promote forest health by reducing tree crowding and fuel loads will provide long-term benefits by altering the trend." (page 8)
- "Fire ecology is the key to restoring proper forest health. Forests managed for resistance to fire damage will also resist damage by native insects, disease organisms, and extreme weather conditions with the additional advantage of protecting fish, wildlife, watershed, and other public resources." (page 14)

As the DNR's Internal Working Group reviewed the 2004 Strategic Plan and the Forest Health Work Group Report, it became clear that forest health was foundational; further, these findings strongly supported by what has been observed in our ongoing wildfire suppression efforts. Simply put, forest health is a major factor in risk, safety and costs. Effective wildland fire protection must be based on forest health if we are to achieve any of the proposed six goals.

Chapter 2
Development of the strategic plan

During the fall of 2005, Doug Sutherland, Commissioner of Public Lands, directed the Department of Natural Resources (DNR) to strategically evaluate its wildfire program for the approximately 12.7 million acres of forest land it protects. Framed by the 2005 JLARC *Fire Suppression Study* and the 2004 *Strategic Plan for Healthy Forests*, it became clear that the past was no reliable indicator about the future. With a 40 percent increase in the state's population expected over the next thirty years coupled with changes in climate and forest health, the future of wildfire will be unlike the past.

Using traditional strategic planning methods, an Internal Working Group created a *Mission Statement*, an organization's reason for existing, and a *Values Statement*, key beliefs and standards; these are found in Chapter 4. Then, taking a different stance, the Group looked at what Washington's social and physical landscapes might look like in the year 2020. Using a number of givens and assumptions, the DNR created a *Probable Future in 2020* (also in Chapter 4) that was based upon trends and forces now in play or likely to be in play in the near future in the world and in the state.

Guided by the DNR's Mission and Value statements and the *Probable Future in 2020,* the DNR forecasted a future that can be created through strategic action. The *Preferred Future in 2020* is the basis for all subsequent strategic actions that take the form of Goals, Objectives and Strategies.

An Advisory Committee was formed to advise the department as it prepared the strategic plan. It is composed of informed individuals representing diverse interests. The DNR sought members from elected officials such as Legislators on key committees, County Commissioners and Fire District Commissioners, landowner associations, tribal interests, state agencies and non-governmental organizations. The Advisory Committee, see Appendix B, was asked to focus on strategic direction, not near-term tactical or

operational issues. As the DNR developed draft key strategic documents, *Mission, Values, Preferred Future in 2020, Goals and Objectives*, they were presented to the Advisory Committee. Their ideas improved the earlier drafts, producing the final strategic content contained within this document.

Wildland Fire Protection: The Nature of the Plan

The Strategic Plan started with a focus on wildfire suppression. Quickly, it became clear that a broader view was necessary. As used in this Strategic Plan, the focus changed to wildland fire protection, the interaction between forest health, wildfire readiness, wildfire prevention and wildfire suppression.

It is not by accident that forest health is the "foundation" of this new fire triangle symbol. The 2004 Strategic Plan for Healthy Forests clearly identified ten recommendations for healthy forests. Understanding the dynamic links between forest health risks and wildfire risks is the key to effective and efficient action. The objective of reasonable solutions is to reduce the risk to acceptable levels.

Climate change, shifts in the composition of the forests and macro-economic forces all have collided to produce an unstable forest system that is undergoing rapid change. The proposed strategic directions for the wildland fire protection programs are designed to adapt to these rapid changes.

Eight key policy questions

DNR identified eight questions that helped frame both problems and solutions. The search for the answers was designed to improve both the effectiveness and efficiency of wildland fire fighting on state-protected forests:

1. *How can forest health principles be used to reduce the costs and impacts of wildfire?*
2. *What are the appropriate roles of prevention, community assistance and education in the overall program?*
3. *How can we provide appropriate public safety for an increased population while continuing to suppress wildfires?*
4. *What are the appropriate roles for the various firefighting partners?*
5. *How can we improve training and recruitment to provide the necessary human resources?*
6. *What is the best role for contractors?*
7. *How should the State of Washington participate in "all-risk" incidents, inside and outside of the state?*
8. *In the process, are there legislative changes that would increase efficiency and effectiveness of fire protection in Washington?*

The parts of the plan

For wildland fire protection, the DNR focused on what was the organization's reason for existence *(Mission)* and what were its key beliefs and standards *(Values)*. We looked at Washington's social and physical landscapes and the forces that are likely to shape the future. Guided by these three elements *(Mission, Values, Probable Future in 2020)*, DNR then forecasted a future that can be created through strategic action—the *Preferred Future in 2020*.

Mission, Values and Preferred Future

To answer the eight policy questions, it was important to understand not only legal issues but also other significant factors. Given the current legal framework in Washington, DNR evaluated its primary purposes concerning wildland fire protection. This became the 2020 Mission Statement for Wildland Fire Protection. It was quickly followed by a statement of key beliefs and standards—Values for Wildland Fire Protection. These are not the Mission and Values of the whole DNR.

It was also necessary to identify some givens and assumptions about the future, based upon trends and forces now in play or likely to be in play in the near future in the world and in the state. These assumptions permitted us to envision a Probable Future for 2020.

Using the Mission, Values, and Probable Future in 2020, DNR answered questions about the future such as:

- "What will 2020 be like?"
- "What do we want forest protection to be like?"
- "What are appropriate roles for individuals, communities and institutions such as the fire districts, the department and other agencies?" and
- "What changes should be made?"

The answers to such questions created a view of the Preferred Future. This is the future that can be created through strategic action. The Wildland Fire Protection Strategic Plan is built on the intention to create the Preferred Future. It is both future oriented and grounded in today's actions that will lead to the Preferred Future.

Goals, Objectives and Strategies

The Goals Objectives and Strategies are the major elements of the Strategic Plan. They provide primary direction. From these, the DNR's Implementation Teams will develop specific work plans, a series of prioritized tactical and operational activities.

Chapter 3
Answers to the 8 Key Policy Questions

Answers to the eight policy questions began to emerge as the DNR studied the Mission, Values, Preferred Future, Goals, Objectives and Strategies. The answers help create a picture of what Washington's wildland fire protection can and should be. They provide a summary of actions or understandings that will drive strategic action.

Both the questions and their abbreviated answers will help sharpen additional study and increase the understanding of the inter-related issues.

1. How can forest health principles be used to reduce the costs and impacts of wildfire?

Forest health and fire are closely connected in the complex ecology of Washington's forests. While there is complexity, the role that fire plays in healthy forests is becoming more clearly understood. As previously noted, the Forest Health Strategic Work Group evaluated the connections and identified key principles and facts that provide simply stated answers to this question:

- "Fire suppression costs are rising due to extreme fire behavior caused by high fuel loads and increased tactical complexities when homes and structures are intermixed with forest. ... Fire prevention continues to be a very important component of an overall strategy, but activities that promote forest health by reducing tree crowding and fuel loads will provide long-term benefits by altering the trend." (page 8)
- "Fire ecology is the key to restoring proper forest health. Forests managed for resistance to fire damage will also resist damage by native insects, disease organisms, and extreme weather conditions with the additional advantage of protecting fish, wildlife, watershed, and other public resources." (page 14)

Adaptation is the pathway to improving current forest conditions. Adaptation acknowledges fundamental ecological process in a context that has changed and will continue to change. Such an approach to forest protection is more likely to succeed. Simple reliance on the past as a future target increases both risks and costs to the public, communities, landowners and firefighters.

Background

Forest health and fire are closely connected to the ecology of Washington's forests. The role that fire plays in healthy forests is becoming more clearly understood.

A forest's ability to withstand stresses such as drought, fire, insects and diseases is directly affected by complex interactions of many factors that relate to three basic tree growth concepts:

1. **Trees growing in suitable climates and soils will increase in size and number until one or more factors necessary for growth are no longer available.** As trees compete for physical resources such as access to sunlight, water, and mineral nutrients, these resources become increasingly "scarce"—the demand outstrips the supply. This "scarcity" limits tree growth, reducing or stopping it altogether.
2. **Lack of ability to grow is associated with susceptibility to insects and diseases.** Affected trees may have insufficient water or energy to produce and circulate defensive chemicals or repair injured tissue. Insects and pathogens take advantage of weakened, crowded host trees.
3. **Unless some event such as drought, fire, or timber harvest occurs and kills or removes some of the competing trees, trees grow until they become weak and susceptible to insects and disease.** In some cases, the insect and disease mortality is sufficient to reduce resource scarcity, relieving stress on surviving trees. If insect and pathogen populations rise to high enough levels, even trees that would normally survive environmental stress may die.

The results of an unhealthy forest include:

- Increased fuel loading that can result in more severe and extensive fires;
- Changed forest composition that may have unwanted biological, environmental or social impacts; and
- Accelerated economic losses.

Climate change, shifts in the composition of the forests and macro-economic forces all collide to produce an unstable system that is undergoing rapid change. Yet, we know enough to make changes that will stabilize or improve current conditions.

Adaptation

Forest conditions have changed over time. They have never been static. The result is a system that is dynamic with ecosystems that respond to biological, environmental and social forces. What we have experienced and are continuing to experience are increased risks and accelerating costs. As directed by the 2004 Washington State Legislature in 2SSB6144, Commissioner of Public Lands Doug Sutherland assembled a Forest Health Strategy Work Group (Work Group). The Work Group was asked to examine extensive forest health problems in Washington's forests and to identify opportunities to improve forest health conditions.

The Work Group was composed of landowners, land managers, consulting foresters, a hydrologist, a forest entomologist, a fire ecologist, tribal government, conservation groups, Society of American Foresters, Washington Department of Fish and Wildlife, the University of Washington's College of Forest Resources, USDA Forest Service, and the Department of Natural Resources. The Work Group issued a December 2004 report, *"A Desirable Forest Health Program for Washington's Forests"*[4].

Solutions to the forest health/wildfire problems are based on the extensive analyses and recommendations of the Forest Health Strategy Work Group. The approaches are adaptive, responsive to the changed conditions and acknowledge that we cannot restore historical conditions.

Given that there are forest health problems on millions of acres, improvement will take time. It will also take money, knowing well that forest health is a responsibility shared between the public and the landowner. Presently, DNR's forest health budget is about one percent of the Forest Resource Division's total budget and is dwarfed by fire suppression costs. Incentives and investments have been shown to reduce suppression costs and resource damage; please see Appendix C and Appendix D for quantification and other details.

[4] To view the complete report, go to http://www.dnr.wa.gov/htdocs/rp/forhealth/fhswgc/index.html.

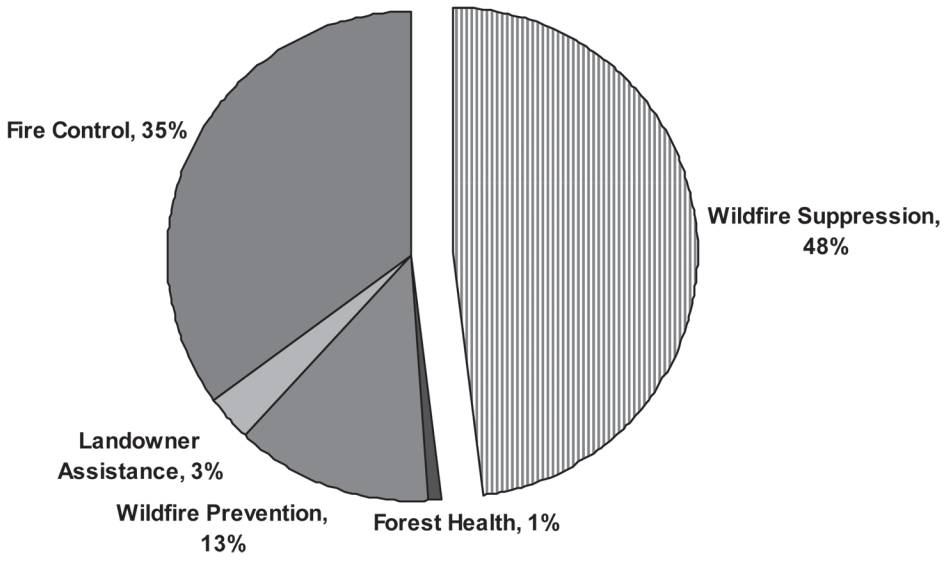
For additional information also see Appendix G, *"Forest Health and Wildfires."* The other details are contained within the following sections of this Report:

- Forest Health Goal and all of its supporting Objectives;
- Partnership Objectives 2 and 3; and
- Financial Objective 6.

2. What are the appropriate roles of prevention, community assistance and education in the overall program?

Today, only one percent of DNR's Resource Protection Division budget is for forest health, and half of that comes from the federal government. The DNR believes that a different balance among these program elements will provide better wildland fire protection, save more homes and better protect the quality of life. Given forest health's dominant role in fire, greater investment in forest health is a paying proposition for the public, taxpayers and landowners.

Figure 4 — 2005 Budget for the Resource Protection Division



Without changes in people's behavior, fire suppression costs and resource damage will only continue to increase. For DNR-protected land, approximately 85 percent of all wildfires are human caused. Helping people understand the importance of their actions becomes even more relevant as Washington's population increases. Prevention delivers public education and provides limited funds for local fire district assistance.

Landowner assistance delivers technical and financial assistance to urban and rural communities and landowners to keep forests productive and to understand the connections between trees, forest health, wildfire risks and daily lives.

Readiness funds training and other pre-suppression efforts to ensure safe & cost effective suppression actions, plus funds the Correctional Camps.

The Joint Legislative Audit and Review Committee issued its *"Fire Suppression Study",* Report 11-05 which raised budgeting questions about the various components, such as fuels management, education and mitigation efforts versus suppression. "Another important step[5] in improving budget information for policy makers is to consider the suppression and the pre-suppression budgets together. Such a combined view can help in understanding relationships between the cost of being ready and fighting fires as well as the relationship between prevention activities and fires."

The other details are contained within the following sections of Chapter 4 of this Report:

- Responsibility Objectives 2,3, and 4;
- Partnership Objectives 2, 3, and 4; and
- Financial Objectives 3 and 6.

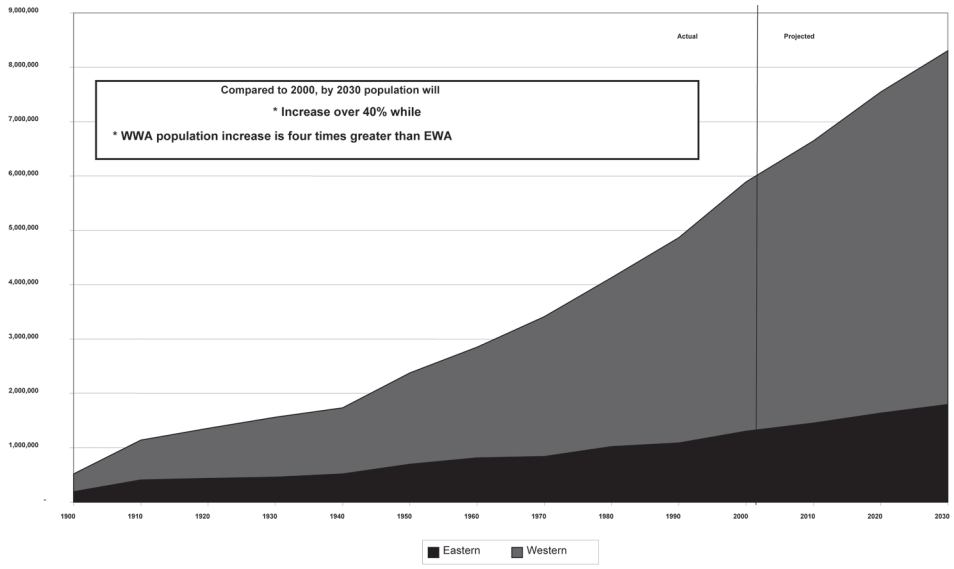
3. How can we provide appropriate public safety for the substantially increased population while continuing to suppress wildfires?

Only partnerships can provide the type and levels of wildfire protection needed in Washington. To reduce confusion and conflicts, the Strategic Plan calls for developing an approach to provide fire protection to all land in Washington. This requires a change in legal authorities and new partnerships.

[5] *"Fire Suppression Study",* JLARC Report 11-05, page 32.

By the year 2020, there will be about 600,000 new homes in Washington. The following figure, abstracted from Appendix A, shows how Washington's population is expected to increase, particularly in western Washington. Not only is the population growing, more people are also acquiring second homes. As more homes are built in the wildlands, the land becomes less "wild" but still exposed to substantial wildfire risk. The risks are often compounded by the interaction of forest health and climate change.

Figure 5 — Actual and Projected Population of Washington



Presently, state law does not require universal fire protection. JLARC Fire Suppression Study correctly noted that wildfire suppression tactics that protect homes "likely conflict[6] with statute[7] and may increase suppression costs.... Since statute states that saving lives is the highest priority, fire fighters justify placing higher priority on structures by thinking of structure protection as a safety issue. DNR recognizes the tension for fire managers when houses are threatened."

An increased population will accelerate change, creating the need for both clarity and appropriate legal authority. The Strategic Plan places a priority on landowners, communities, government entities and the public's acknowledgement and actions that fulfill their

6 Ibid. page 8.
7 RCW 76.04.167(2).

wildfire protection responsibilities. It also places a premium on formal agreements to reduce duplication, reduce costs and improve services.

Development will occur in the wildlands, but the growth rates in the wildland-urban interface are even greater. "While the data[8] for the state's prospective development are not currently available, it is informative to look at the national data. Nine percent of the land area of the United States and 31 percent of U.S. homes are in the wildland-urban interface and growth rates within it are triple the rates elsewhere."

How development occurs is a source of concern. Road standards and other development practices have significant impacts on the ability to save lives, save homes and safely fight wildfires. The Strategic Plan proposes to collaboratively create safe firefighting options through model ordinances that would affect development standards and land management practices.

The other details are contained within the following sections of Chapter 4 of this Report:

- Safety Objectives 2,3, and 4;
- Responsibility and Authority Goal and all of its supportive Objectives; and
- Wildland Protection Objectives 1, 2, and 3.

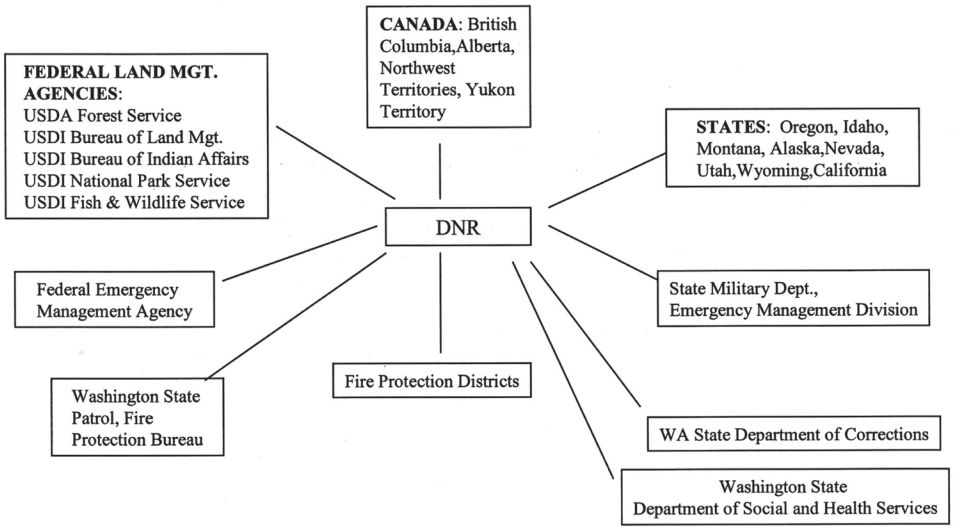
4. What are the appropriate roles for the various firefighting partners?

Washington, like most states, cannot afford a full-time wildfire organization. Partnerships make wildland firefighting possible in Washington. Only partnerships can provide the type and levels of wildfire protection needed in Washington. Partners now play a larger role, in particular the fire protection districts. Due to increasing population, fire protection district wildfire responsibilities will substantially increase. Coordination and cooperation will be more important than ever. Over time, many fire protection districts will provide most of the protection services now provided by the DNR.

Our wildland firefighting is based on a series of agreements, compacts or laws that facilitate and/or permit resources to be shared, sometimes across state or international borders.

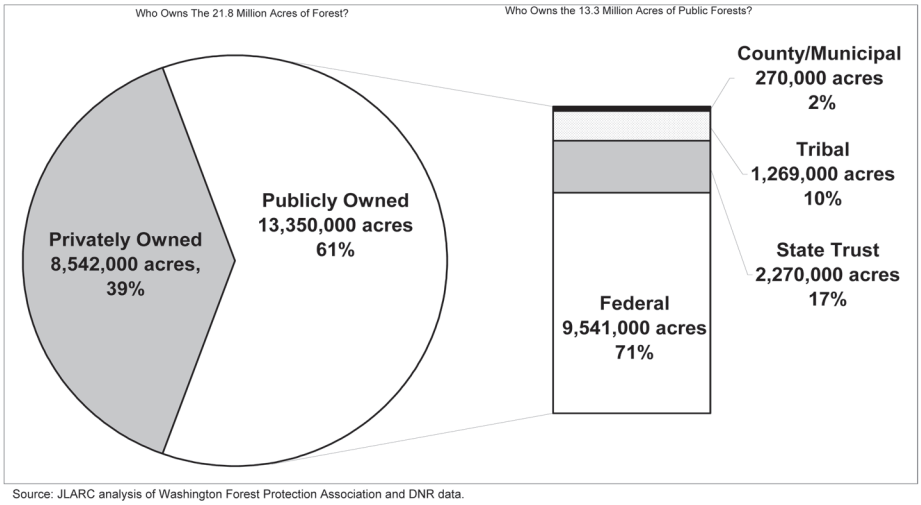
8 Appendix A, page 16.

Figure 6: Resource Partnerships



Participation has changed over time. Historically, the U.S. Forest Service has been the major federal player, a natural outcome of land ownership patterns and the nature and extent of the resources managed by this entity. The organizational framework and the number of available U.S. Forest Service resources have been substantially reduced. There are some significant consequences of reduced federal participation. As shown in Figure 9, abstracted

Figure 7 — Forestland Ownership in Washington State



Source: JLARC analysis of Washington Forest Protection Association and DNR data.

from Appendix A, there are about 9.5 million acres of federal forestlands in Washington, most U.S. Forest Service, making up about 43 percent of the 21.8 million forested acres in the state. The large

extent of federal forests and the fuel build-up and their well-documented forest health problems compound the policy problems. Even if the federal government reimburses all partners for their direct expenses, there are other real costs, including accelerated resource losses.

The other details are contained within the following sections of Chapter 4 of this Report:

- Responsibility Objectives 2, 3, and 4;
- Partnership Goal and all of its supportive Objectives; and
- Financial Goal Objectives 1, 3, 4, and 6.

5. How can we improve training and recruitment to provide the necessary human resources?

Firefighters need a lot of experience to develop the judgment to safely and effectively fight wildfires. The Strategic Plan recognizes several components. The answer is a focused successional plan that recognizes the investments and commitments necessary to train firefighters. It also is coupled with a strong call for all firefighting partners to equitably participate in wildfire protection

Background

As part of the Strategic Plan, the DNR has carefully analyzed the interaction of training and recruitment factors; see Appendix F for DNR analyses that provide some initial insights, yet recognize that we need further study. The analyses make some important observations about the following:

- **Focused successional plan.** A narrowly focused successional plan is essential. The expense and time required to qualify, coupled with DNR's need for relatively few, yet critical, individuals at the Type 2 and Type 3 complexity[9] level, requires a plan that can ensure adequate staffing.
- **Financial Investments in People.** Decisions about the appropriate number of DNR or other people required in specific incident command system positions are important for many reasons. Among these are significant fiscal implications. The DNR has determined that more than 10 years of on-the-

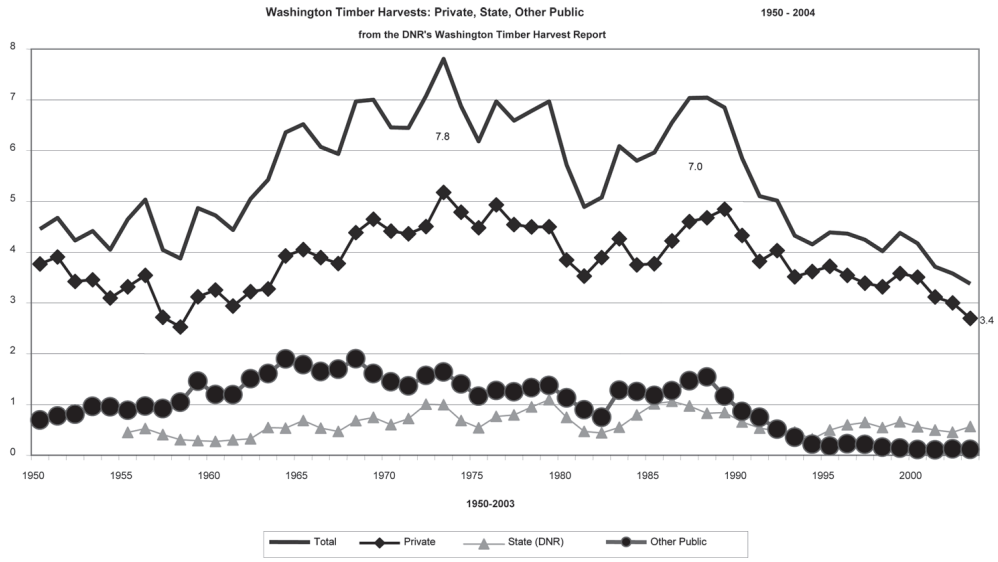
[9] Based on a scale of 1 through 5, incidents are rated based upon their complexity and risk; type 5 incidents are the least complex and risky. For additional information, see Appendix J.

job training and investments of at least $65,000 are required before an individual is typically qualified in key incident command positions. Today, DNR's total fire control training investment in current employees is over twenty million dollars.

- **Some key position needs are being met but there are critical shortages.** DNR's needs for some key incident command system positions are being met. However, significant shortages are identified among other key positions, including initial attack overhead.
- **Equitable Participation.** Because large, complex incidents in Washington are multi-jurisdictional in nature, all partners should equitably provide overhead resources. Embedded in this topic is the difficult issue of how many large Type 2 incident management teams are necessary in Washington.

There are background factors that shaped the DNR analyses. The first is experience. One source of very practical experience used to be broadcast slash burning, the burning of woody debris following logging. Today we only burn about 5 percent of the historical average of over 60,000 thousand acres per year. In the past 20 years, landowner cost concerns collided with changes in air quality regulation and timber harvesting practices, forest practices rules and the type of forests being harvested. The result has been a dramatic drop in slash burning. Also, total timber harvest as shown in Figure 8, simultaneously dropped. The net result is that few acres are burned today, removing the opportunity to gain important fire behavior and other knowledge important for fighting wildfires.

Figure 8 — Timber Harvest by Ownership



The second major background factor is the combination of downsizing and retirement. As shown in the previous chart, timber harvest has substantially declined in the "Other Public;" essentially, this is the U.S. Forest Service. As harvest on U.S. Forest Service dropped to a few percent of historical levels, many people lost their jobs, including many with substantial wildfire experience. Simultaneously, many people both within the U.S. Forest Service and the DNR with some 30+ years of experience are retiring.

While these forces are changing the workforce, forest health and climate change now produce more extreme fire behavior. Extreme fire behavior increases the risks both to people who are (increasingly) living in the wildlands and to those providing wildland fire protection. Extreme fire behavior also increases the costs of fire suppression as shown by Figure 3.

The Implementation Teams will refine the initial work, leading to both near- and long-term actions to address the previous observations.

Finally, the emerging impact of "all-risk" incidents, such as emergency response to hurricane Katrina, is a new reality that creates additional demands. See Question 7 for additional information.

The other details are contained within the following sections of Chapter 4 of this Report:

- Responsibility and Authority Objectives 1, 2, and 5;
- Partnership Objectives 2, 3, and 4; and
- Financial Goal Objectives 2, 4 and 5.

6. What is the best role for contractors?

Contractors can provide resources to meet peak workloads or provide special skills or equipment that cannot be reasonably funded by governmental entities. When contractors are the "best value," DNR will use them extensively.

During the 1990s and early 2000s, the contracting sector for wildland firefighting resources in the Pacific Northwest expanded considerably. There were many reasons for this increase, including demand created by high wildfire suppression activity and required use of private resources by the federal land management agencies.

However, until recently, federal and state land management agencies in Washington and Oregon relied almost completely on governmental fire suppression resources. In general, DNR's approach is to

first use its own resources, then those available through other cooperating firefighting agencies, and then those available from contractors. When drawing on contractors, DNR seeks to utilize the "best value" contractor resource available through an established agreement or contract; if none is available, local contractors are hired on an emergency basis.

The "best value" approach is used by the DNR to comply with state law, in particular RCW 76.04.015 (4)(b). The following is abstracted from the legislative record for the previously cited statute:

> "The legislature finds that it is frequently in the best interest of the state to utilize fire suppression equipment from private vendors whenever possible in responding to incidents involving wildfires on department-protected lands. It is the intent of the legislature to encourage the department of natural resources to utilize kitchen, shower, and other fire suppression equipment vendors as allowed in RCW 76.04.015 (4)(b), when such utilization will be most effective and efficient." (1995 c 113: Finding—Intent).

Given that there are fewer agency resources and that there are more fires, DNR is seriously looking at expanding the role of contractors for specific purposes. How, when and where to use contractors are important issues that do not currently have uniform answers. DNR is not the only governmental entity evaluating wildfire contractors.

The Pacific Northwest Wildfire Coordinating Group has played, and continues to play, a pivotal leadership role in the development of a viable and effective contracting segment geared to meet the needs of the member agencies. In March 2004, the Pacific Northwest Wildfire Coordinating Group Steering Committee adopted the "Interagency Strategic Plan for Fire Suppression Contracting in the Pacific Northwest" (Interagency Contracting Plan).

As part of the Strategic Plan, the DNR has carefully reviewed the prospective roles of contractors. Please refer to Appendix E for more complete information. The initial analyses tell us that the DNR needs further study to work out key implementation details. One of the early steps is a comprehensive statewide collaborative assessment to identify the best wildland fire protection provider for each geographical area. Further, DNR is committed to analyzing the cost effectiveness of various resources, including private sector, state, tribal, local and federal sources.

Initial review of contracting makes some important observations:

- **Best Value.** DNR should adopt a "best value"[10] definition and methodology based upon Pacific Northwest Wildfire Coordinating Group concepts. Resource acquisition decisions should be based upon "best value" criteria and applied to DNR, other governmental agency and contractor resources.
- **Initial Attack.** In general, DNR should continue to rely on closest forces for initial attack; DNR's own resources should remain a critical component. DNR's resources are cost-effective; guaranteed availability and control over deployment makes these resources more cost-effective than obtaining similar initial attack resources from contractors.
- **Extended Attack and Large Incidents.** Subject to a "best value" test, DNR should in many instances substitute contractor engines, tenders, handcrews and helicopters for corresponding DNR resources (inmate handcrews should generally not be replaced), so that DNR's resources are free for initial attack duty.
- **Training.** DNR should consider making greater use of contractors for training DNR personnel in incident command system and national incident management system courses.
- **Aerial Resources.**
  - **Large Airtankers and Large Helicopters.** DNR should continue to rely on cooperative agreements with other public agencies to obtain services of large fixed-wing aircraft and large helicopters.
  - **Medium Helicopters.** DNR should rely on its exclusive use medium helicopters for most initial attack needs in areas where contractor aircraft are not reliably available, and continue to utilize call-when-needed contractor helicopters for some extended attack and for most large incidents.

The other details are contained within the following sections of Chapter 4 of this Report:

- Responsibility and Authority Objective 1;
- Partnership Objective 1;
- Wildland Protection Objectives 3 and 4; and
- Financial Objective 3.

[10] See Appendix E for details.

7. How should the State of Washington participate in "all-risk" incidents, inside and outside of the state?

The Incident Management Teams are investments in the emergency response capital of the United States and Washington. While this statement is true, how to use this capital is unclear. There remain many unresolved policy questions not only for state government but for the entire nation. Answers will take time. They will come only through experience and the evolution of state and national security policies.

National security issues have changed state government. Given the skills and training for wildfire incidents and the millions of dollars spent developing expertise in the Incident Command System, it is no surprise that the Incident Management Teams or individuals trained for wildfire assignments are seen as valuable assets.

In the hurricane response last year, DNR provided over six full-time equivalents, which is the same as six people working for a full year, on disaster recovery. This is one example of "all-risk" response, whether out of state as above, or closer to home, as in DNR's participation in the 2000 World Trade Organization incident in Seattle.

State law provides direction. RCW 38.52.110(1) requires DNR to respond to any type of emergency if requested by the Governor (e.g., through the State Military Department) or other executive heads of state political subdivision emergency management organizations (e.g., at the county level). DNR has committed to local partner agencies that its employees will respond if an incident management team is ordered for a non-wildfire emergency response ("all-risk" response).[11] DNR expects such requests to be for incidents of Type 2 or Type 1 complexity, because less complex incidents can likely be managed effectively by local resources.

At present, it is impossible to accurately forecast the potential demand for all-risk responses. Uncertainties abound and include:

- *At what time of the year might these orders come (will they essentially extend the "peak demand period" to include times when DNR teams members have not previously been called to respond)? (NOTE: Due to year-round wildfire threat, there is always an incident management team on rotational standby.*

[11] Detail is provided in a January 11, 2005 letter from Commissioner of Public Lands, Doug Sutherland, to Washington State Fire Defense Committee chairman Dave Wakefield.

The standby team is available to respond to large all-risk incidents.) What frequency of response demand is likely, and how long might the assignments last?

- *What training and certification standards will be required of team members, and how will this affect the quantity and timing of training for DNR participants?*

What is clear is the need for the Implementation Teams to answer the current and emerging questions.

The other details are contained within the following section of Chapter 4 of this Report:

- Responsibility Objective 1.

8. Are there legislative changes that would benefit the people of Washington?

Yes.

Much has changed since the state enacted a compulsory wildfire control law in 1917. The last strategic review of the wildfire program was conducted by the Forest Fire Advisory Board in 1986. This Wildfire Prevention Strategic Plan identifies a number of possible changes that range from those that would improve forest health to the development of model land-use ordinances to formal forest health and fire risk disclosure processes during realty transactions.

The Legislature passed a supplement budget in March 2006 that included proviso (16) in the DNR's budget that stated, "within existing appropriations, the department shall implement the wildfire prevention and protection work group as defined Substitute Senate Bill 6603[12] (wildfire prevention)". Even though the Legislature did not pass SSB 6603, the budget proviso brought it temporarily back to life. The proviso creates a 21-member work group. The Bill directed the work group to "review existing fire studies conducted by or for the department of natural resources, the joint legislative audit and review committee, and other organizations." Subsequently, the Governor vetoed the proviso.

The work group is to review nine major issues, ranging from how wildfire suppression is funded to how effectively state and local building codes adequately address the dangers posed by development in areas subject to wildfire. The bill said the "wildfire pre-

[12] See Appendix H.

vention and protection work group shall report its findings and recommendations in the form of draft legislation to the legislature by December 1, 2006."

Chapter 4
Strategic Plan Introduction

The *Strategic Plan for Wildland Fire Protection* was collaboratively developed with the help of an external Advisory Committee. The Department of Natural Resources (DNR) sought the Advisory Committee's ideas on the future of wildland fire protection. It has been nearly two decades since the last comprehensive evaluation of how 12.7 million acres of forest lands are protected by the DNR.

The *Strategic Plan for Wildland Fire Protection* creates a series of goals, objectives and strategies that are designed to identify legislative, budget and operational actions necessary to respond to changes in climate, population and forest health. The *Plan* defines broad steps necessary to achieve a preferred future for fire protection in the State of Washington.

The *Plan* is based on the premise of action. Specific actions necessary to implement the Plan are being developed by a series of Implementation Teams. The DNR asked all Advisory Committee members to participate in the Implementation Teams that will develop specific proposals and priorities for action. The DNR anticipates a number of changes can be made within existing authorities and budget. Other actions would require collaborative efforts to propose legislation and suggest appropriate budgets. Many, but not all, implementation details, including early priorities, will be known by the end of calendar year 2006.

The Strategic Plan

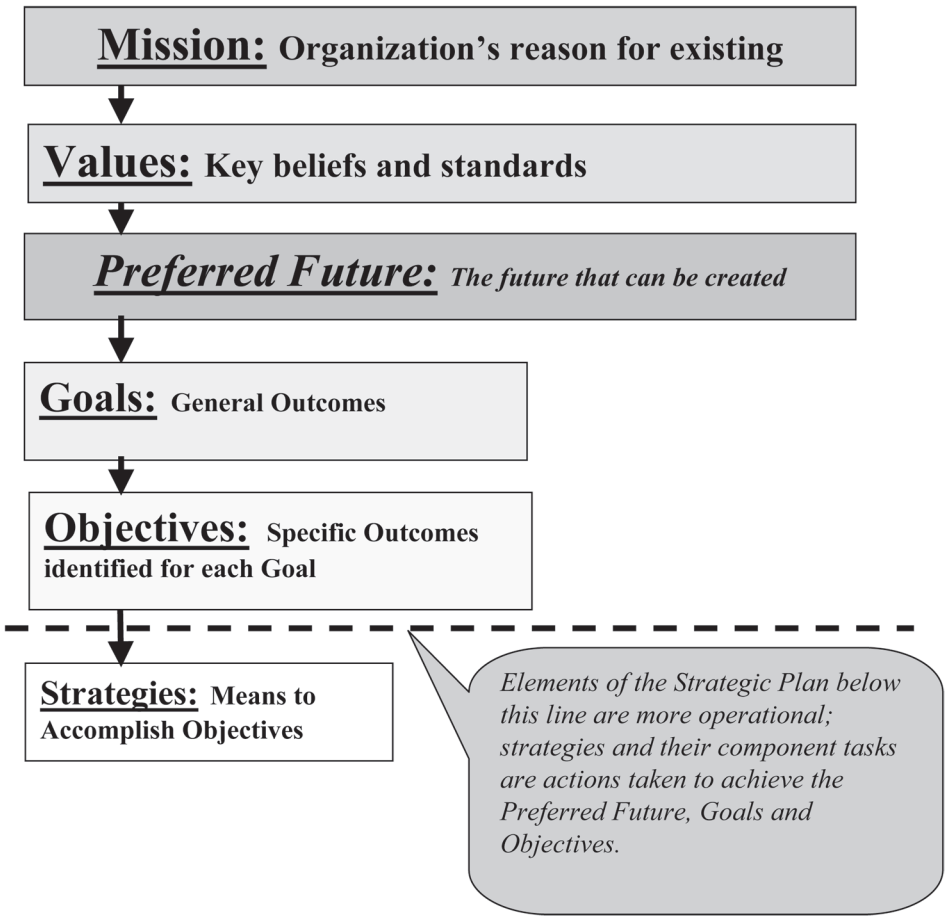
History shows that wildfire[13] has always played a big role in the forests of the western United States. What has changed is the risk. Wildfire risk to public safety, private property and the quality of life in Washington is now really different. Many also sense that the risks will only increase unless there are fundamental changes, changes that must involve many people.

As the Department of Natural Resources (DNR) evaluated necessary changes, it became clear that a framework was necessary. We looked at current practices and added new elements to create a path to lead to where Washington's wildfire protection will better serve the needs of today and tomorrow. The framework forms the components of this Strategic Plan.

The Wildland Fire Protection Strategic Plan was built using a hierarchical model. Figure 5 identifies the major components. In this model, the Mission and other components provide direction and unifying themes to anything below.

[13] In this plan, the following definitions apply:
Wildland Fire - any vegetation fire that occurs in the wildland that may or may not involve structures;
Wildfire - an unplanned, unwanted wildland fire; and
Prescribed Fire - any wildland fire, planned or unplanned, used to meet specific objectives and is within an established prescription.

Figure 9 — Hierarchical Model of the Resource Protection Strategic Plan.



Mission, Values & Preferred Future

Given the current legal framework in Washington, DNR evaluated its primary purposes concerning wildland fire protection. This became the 2020 Mission Statement for wildland Fire Protection. It was quickly followed by a statement of key beliefs and standards—Values for Wildland Fire Protection. These are not the Mission and Values of the whole DNR.

It was also necessary to identify some givens and assumptions about the future, based upon trends and forces now in play or likely to be in play in the near future in the world and in the state. These assumptions permitted us to envision a probable future for 2020.

Our 2020 Mission

- To acknowledge the role of fire in Washington's wildlands.
- To provide exemplary service and leadership in the effective and efficient protection of human life, natural resources and property from wildfire.
- To promote the role of healthy forests in minimizing the unwanted effects of wildfire to enhance the quality of life for Washington's citizens.
- To prevent and safely and aggressively suppress wild fires.

Our mission will be achieved through community-based action and collaboration with our partners.

Our Values

In achieving our Mission, the following Values guide the fire protection program:

PUBLIC, COMMUNITY AND FIREFIGHTER SAFETY

- Safety is the top priority.

ENDURING STEWARDSHIP

- This agency exists to provide enduring stewardship of our State's natural resources, including preventing loss of human life and reducing real property and other resource losses.
- Healthy forests contribute to the quality of life in Washington.
- Combining the best mix of both public service and business-like approaches enables us to carry out our duties with competence, consistency and fairness.

VISIONARY LEADERSHIP

- The DNR continues to be recognized as a world leader in wildland fire protection. Technology is creatively and efficiently used to reduce costs, resource damage and other losses.
- We strive to make a difference by realizing our full potential.

- There is a strong urban and rural connection which helps support the quality of life.
- Using a world class organization that has effective and clear jurisdictions, appropriate authorities collaborate to deliver services to the people of Washington.

INCLUSIVE DECISION-MAKING

- Decision-making will be timely, open, well informed, and adaptively respond to new information. The common sense and consistency of our decisions and priorities will always be apparent.
- Enable the public, communities and landowners to share and acknowledge their responsibilities for wildfire protection.
- Long-term public safety is dependent upon a collaborative approach to land-use planning that acknowledges the risks of fire, the role of fire and the importance of forest health.

CREATIVE SOLUTIONS

- Clear, workable solutions to our natural resource issues emerge from the exercise of sound judgment and a bias for action, innovation and informed risk taking.
- Clear accountability exists for the effective and efficient use of budget.

RESPECTFUL RELATIONSHIPS

- Relationships matter, both inside and outside the agency. All voices are heard when we see all interested parties as partners, engaging and listening to them.

CAPABLE, DIVERSE AND SUSTAINABLE WORKFORCE

- Those who participate in the resource protection program are representative of the society they serve. A well-trained work force contributes to the safety of all.

The Future can be Created

Creating the preferred future begins with envisioning it.

It was necessary to state some givens and to make some assumptions about the future. There are world, national and local forces that interact with both the social and political landscapes of Washington; these forces are also dynamic and are guaranteed to

change. Knowing this, the Strategic Plan is dynamic. The result is an ongoing commitment to periodically assess the validity of the givens and assumptions. The changes create both threats and opportunities that will require modification of the Strategic Plan.

Givens about the Probable Future in 2020

- The core forest protection laws will exist in essentially their current form, including the existing limits on Department responsibilities relative to protecting improved property.
- Citizens will expect that wildfires on private and state lands are effectively and efficiently suppressed.
- The costs of wildfire suppression will continue to increase.
- A healthy forest is resistant to uncharacteristic, economically or environmentally undesirable wildfire, windstorm, pests, disease and other damaging agents, and is able to recover following disturbance.[14]

Probable Future Assumptions

The DNR identified assumptions about 2020 and placed them into categories that included the following:

- Land use and demographics;
- Societal values;
- State forest health trends;
- State Landscape Characteristics and trends;
- Firefighting resources;
- Interagency cooperation; and
- Funding.

Preferred Future in 2020 and its Key Themes

Using the Mission, Values, and Probable Future, DNR answered questions about the future such as:

- "What will 2020 be like?"
- "What do we want forest protection to be like?"
- "What are appropriate roles for individuals, communities and institutions such as the fire districts, the department and other agencies?" and
- "What changes should be made?"

The answers to such questions created a view of the Preferred Future in 2020. This is the future that can be created through strategic action. The Wildland Fire Protection Strategic Plan is

[14] From: WADNR. December 2004. *"A Desirable Forest Health Program for Washington's Forests."* Forest Health Strategy Work Group Report. See page 4.

built on the intention to create the Preferred Future in 2020. It is both future oriented and grounded in today's actions that will lead to the Preferred Future in 2020.

DNR identified key themes that have great potential impact, not only on current operations but also on our sense of the Preferred Future. The success of the Strategic Plan is based on our ability to correctly interpret the status and trends within the themes, making periodic adjustments as necessary.

- **More people, more houses.** By 2020, forecasts show there will be an additional 1.6 million people[15] with over 600 thousand new homes, compared to the year 2000. About 80 percent of growth will be in western Washington.
- **Homes and other improvements in the forests.** Wildfires will become larger, more complex and costly due to mixed land uses that increase public safety risks.
- **The connection between forest health and wildfire.** Wildfire suppression costs are directly related to forest health. Minimizing net costs is only possible through investments in forest health and wildfire prevention.
- **Climate change will affect forest health.** The continuing decline of forest health increases risk to the public, fire fighters and the environment of the Evergreen State.
- **The "graying" of Washington.** By 2020, more than one in five Washingtonians will be 60+ years, over a 40% increase. This will place new demands on the state budget with a correspondingly elevated concern about public health effects of smoke, whether from wildfire or prescribed burning.
- **Change in land use patterns.** Beyond the effects of new homes in the forests, larger forest ownerships will become increasingly fragmented, further reducing public access to wildlands.
- **Disparities.** The social and economic differences between urban/suburban and rural landscapes will increase.
- **Water.** Competition for water and concerns about water quality will reach critical proportions by 2020.
- **Partnerships in wildland fire protection.** No one has enough resources, resulting in increased reliance in partnerships. All partners face serious challenges in developing essential skills and an adequate number of trained people, even without the increasing demands to work on "all risk" incidents such as the Katrina hurricane.
- **Competition for financial resources.** State and federal dollars will be increasingly scarce.

[15] Data source: OFM, Office of the Governor, population forecasts.

Goals, Objectives and Strategies

Figure 9 identifies the relationship between the various components of the Strategic Plan. All Goals are important. For wildland fire protection to be both safe and successful, all Goals must be simultaneously pursued. However, given the very real risks to human life, the Safety Goal necessarily must be paramount. While state law[16] does charge us with aggressive wildfire fighting (and we are aggressive), state law recognizes the primacy of saving lives. The DNR is both grateful and proud that we have not had a wildfire fighter fatality in the last twenty five years.

Table 1 provides a high-level summary, showing the number of Objectives and Strategies for each Goal. Overall, there are

- *6 Goals,* with a combined total of
- *34 Objectives,* with a combined total of
- *134 Strategies.*

SAFETY GOAL: Providing safety for the public and those engaged in firefighting and prescribed fire is paramount.

Strategic and tactical significance of the Goal and its supporting Objectives and Strategies

The risks and consequences of wildfires have increased in the last few decades. Fatalities, burned homes, millions of dollars of suppression costs and uncalculated resource damage, whether economic, social or ecological, all speak to the importance of a safe wildfire fighting effort. Protecting public safety and those who choose to fight wildfires has become more important as more people live in the wildlands and wildfire behavior routinely becomes increasingly extreme.

Recent national disasters have shown the importance of training, planning and the ability to communicate across organizational boundaries. This Goal heavily relies on the Incident Command System (ICS) and established training and qualification standards adopted by the National Wildfire Coordinating Group to achieve many of its key components.

[16] Revised Code of Washington (RCW) 76.04.167(2).

Fire protection involves hazards, including smoke. Of particular importance is the recognition that fuels treatments can minimize net smoke emissions. Prescribed fire can reduce wildfire smoke emissions and meet targets for minimizing net smoke emissions; however, social and regulatory challenges are significant to the expanded use of prescribed fire.

Land use regulations and development standards have a major impact on firefighter safety and possible firefighting tactics. Model ordinances can be developed that acknowledge public and firefighter safety. By promoting landowner and governmental actions that are consistent with forest health objectives, firefighter safety will be increased and suppression costs reduced.

Supporting Objectives and Strategies

SAFETY OBJECTIVE 1. ENSURE ALL FIREFIGHTERS ARE TRAINED AND EQUIPPED TO SAFELY CONDUCT EFFICIENT AND EFFECTIVE OPERATIONS.

Safety Strategy 1.1. Adopt National Wildfire Coordinating Group (NWCG) training and qualification standards as the DNR's safety framework.

Safety Strategy 1.2. Influence NWCG standards to reflect DNR's fire safety needs.

Safety Strategy 1.3. Identify how many DNR employees are needed to fill each Incident Command System (ICS) position, in order to meet DNR's commitments and responsibilities.

Safety Strategy 1.4. Ensure DNR employees receive quality training and provide appropriate training resources for our partners.

Safety Strategy 1.5. Ensure adequate and stable funding for appropriate equipment and training.

Safety Strategy 1.6. Require a physically fit workforce and;

Safety Strategy 1.7. Ensure decision-making skills so that all fire personnel make appropriate and timely safety decisions.

SAFETY OBJECTIVE 2. PREVENT FATALITIES AND SERIOUS INJURIES TO FIREFIGHTERS AND THE PUBLIC.

Safety Strategy 2.1. Adopt the NWCG Fireline Handbook as the DNR's safety standard.

Safety Strategy 2.2. Engage in a continuous review of the Fireline Handbook and other NWCG products to better meet DNR needs.

Safety Strategy 2.3. Establish interoperability standards for communications systems, both in terms of hardware and use.

Safety Strategy 2.4. Train and coach all firefighters in the use of LCES (Lookouts, Communications, Escape routes and Safety zones), in order to ensure their "situation awareness".

Safety Strategy 2.5. Exercise leadership in cooperative public safety strategies and;

Safety Strategy 2.6. Investigate, review and analyze all serious injuries, "burn-overs" and fire-shelter deployments, to determine cause and prevent similar reoccurrences.

SAFETY OBJECTIVE 3. MITIGATE PUBLIC HEALTH HAZARDS ASSOCIATED WITH SMOKE AND OTHER HAZARDS ASSOCIATED WITH WILDFIRE AND PRESCRIBED FIRE.

Safety Strategy 3.1. Encourage fuel treatments that minimize net smoke emissions and that are consistent with financial considerations.

Safety Strategy 3.2. Apply new smoke modeling technology to smoke management and wildfire decisions.

Safety Strategy 3.3. Maintain a continuous improvement program to adapt to emerging technologies.

Safety Strategy 3.4. Protect communities from the health effects of smoke from wildfires and prescribed burns by effective partnerships and planning for air quality impacts from wildfire and prescribed fire and;

Safety Strategy 3.5. Review the DNR's Smoke Management Plan, to ensure consistency with the federal Environmental Protection Agency's Interim Air Quality Policy on Wildland and Prescribed Fire.

SAFETY OBJECTIVE 4. MITIGATE FIREFIGHTER HEALTH HAZARDS ASSOCIATED WITH SMOKE AND OTHER HAZARDS.

Safety Strategy 4.1. Minimize exposure to all fire-associated hazards, consistent with achieving DNR's protection mission and;

Safety Strategy 4.2. Develop and implement a coordinated education program with our partners.

SAFETY OBJECTIVE 5. CREATE SAFE FIREFIGHTING OPTIONS BY AFFECTING DEVELOPMENT STANDARDS AND LAND MANAGEMENT PRACTICES.

Safety Strategy 5.1. Develop and implement educational programs for landowners, land managers and permitting authorities and;

Safety Strategy 5.2. Promote landowner and governmental actions that are consistent with forest health objectives.

SAFETY OBJECTIVE 6. PROMOTE STANDARDIZATION FOR TRAINING, QUALIFICATION, EQUIPMENT AND COMMUNICATION AMONG ALL PARTNERS.

Safety Strategy 6.1. Develop and implement standardized information exchange between all partners and

Safety Strategy 6.2. Standardize safety reports and uniformly distribute safety data.

Forest Health Goal: Create landowner capability and public desire to improve or maintain forest health, to allow efficient and effective wildfire protection.

Strategic and tactical significance of the Goal and it supportive Objectives and Strategies

Among scientists and forestland managers, there is an increasing understanding of the strong connection between forest health conditions and wildfire risks. This connection is much less understood by the general public. The major outcome of the Forest Health Goal is to extend the understanding to the public and landowners with the expectation that shared forest health responsibilities lead to action.

Central to the Goal is education and communication. Working with the diverse interest groups, ranging from landowners, the public and land use planners to the educational community, a number of key messages will be developed. They include but are not limited to the following:

- Forests change over time and are strongly affected by human actions;
- Forest health risk classes directly relate to public and firefighter safety;
- Prescribed fire can improve forest health and increase operational firefighting effectiveness, thereby reducing costs;
- Incentives can be used to achieve both landowner and wildland fire protection objectives; and
- Societal and ecological values can be better protected if forest health is improved.

Supporting Objectives and Strategies

FOREST HEALTH OBJECTIVE 1. ESTABLISH SHARED FOREST HEALTH RESPONSIBILITIES FOR BETWEEN THE PUBLIC AND LANDOWNERS.

Forest Health Strategy 1.1. Test social acceptance and relevance of proposed forest health strategies.

Forest Health Strategy 1.2. Develop a forest health "owners" manual for landowners as part of a campaign to educate landowners on forest health opportunities and responsibilities.

Forest Health Strategy 1.3. Develop an educational campaign that is targeted to the public and focus on its forest health opportunities and responsibilities.

Forest Health Strategy 1.4. Create outreach materials that characterize the role that fire plays in forest health.

Forest Health Strategy 1.5. Work with educational communities to build forest health curricula that meet essential learning requirements.

Forest Health Strategy 1.6. Evaluate natural resource educational programs for opportunities to integrate forest health principles and;

Forest Health Strategy 1.7. Evaluate large fires to identify key messages and lessons regarding land use, forest health, public safety and impacts on the sense of place.

FOREST HEALTH OBJECTIVE 2. INCREASE PUBLIC UNDERSTANDING THAT FORESTS CHANGE OVER TIME AND ARE INFLUENCED BY HUMAN ACTION/NON-ACTION.

Forest Health Strategy 2.1. Expand and implement a forest health communication strategy.

Forest Health Strategy 2.2. Sponsor a landscape-level demonstration project across several classes of ownerships to identify both problems and solutions.

Forest Health Strategy 2.3. Sponsor a community-based firesafe demonstration project in the wildland urban interface incorporating forest health principles.

Forest Health Strategy 2.4. Create an integrated GIS forest land data layer, to assess risk and current forest conditions.

Forest Health Strategy 2.5. Develop simplified forest health evaluation tools for landowners, that integrate risk class concepts.

Forest Health Strategy 2.6. Identify fire behavior relationships that are associated with different forest health risk classes.

Forest Health Strategy 2.7. Recognize family and other forests as "healthy forests," based on collaboratively developed criteria and;

Forest Health Strategy 2.8. Coordinate regulatory requirements with forest health strategies, to achieve key mutual objectives.

FOREST HEALTH OBJECTIVE 3. INTEGRATE FOREST HEALTH PRINCIPLES WITH WILDFIRE PROTECTION.

Forest Health Strategy 3.1. Promote appropriate forest treatments, including prescribed fire, to achieve landscape-level objectives.

Forest Health Strategy 3.2. Integrate landowner objectives into pre-suppression and suppression planning, to reduce landscape level risks and to achieve lowest net costs and;

Forest Health Strategy 3.3. Identify the cost: benefit relationships and other links between and among forest health, fire prevention and suppression.

FOREST HEALTH OBJECTIVE 4. DEVELOP OPPORTUNITIES AND INCENTIVES TO MOVE TOWARD APPROPRIATE TREE SPACING AND FUEL ACCUMULATION LEVELS.

Forest Health Strategy 4.1. Strengthen extreme fire hazard laws, to achieve reduced fuel loading and;

Forest Health Strategy 4.2. Address regulatory and civil liabilities associated with conducting prescribed fire.

FOR HEALTH OBJECTIVE 5. TAKE ACTIONS THAT REDUCE EXTREME FIRE BEHAVIOR.

Forest Health Strategy 5.1. Assess fire potential, risks and resource demands to appropriately pre-position fire suppression resources.

Forest Health Strategy 5.2. Promote strategic pre-suppression forest treatments and fuel breaks and;

Forest Health Strategy 5.3. Develop land management prescriptions that identify cause and effect relationships between forest health risk and stand-level actions.

FOREST HEALTH OBJECTIVE 6. PROTECT SOCIETAL AND ECOLOGICAL VALUES BY INCREASING SURVIVABILITY OF FOREST LANDSCAPES FROM FIRE, INSECTS AND DISEASE.

Forest Health Strategy 6.1. Confirm that DNR's forest health policies and procedures reduce economic and environmental risks and improve forest health.

Forest Health Strategy 6.2. Promote landowner actions that result in the right number of trees, favoring species that are best adapted to the location.

Forest Health Strategy 6.3. Evaluate the financial, social and regulatory barriers that limit the use of prescribed fire.

Forest Health Strategy 6.4. Advocate for habitat conservation plans and similar plans address forest health and;

Forest Health Strategy 6.5. Coordinate risk and hazard reduction activities at the landscape level, across all ownerships.

Responsibility and Authority Goal: Landowners, communities, governmental entities and the public acknowledge and fulfill their wildfire protection responsibilities.

Strategic and tactical significance of the Goal and its supporting Objectives and Strategies

Current Washington State law does not require universal[17] fire protection, creating tension both for property owners and those who provide fire protection services. By providing universal fire protection, resources will be protected in a more consistent and cost-effective manner. Assigning the best wildland fire protection provider (through collaboration and more cooperation) should make it easier to protect the increasing number of structures located in the wildlands.

Model land use ordinances would be collaboratively developed; the ordinances would acknowledge that healthy forests, forest protection and individual and community responsibilities play significant roles in building more firesafe landscapes. Incentives would be created and assistance would be provided to landowners and communities to participate in forest protection activities such as fuel reduction.

Because federal forests make up about half of Washington's forests, it is necessary to actively participate in federal land use, planning processes and fuel reduction efforts to minimize the adverse impacts from adjacent federal wildfires.

Supporting Objectives and Strategies

RESPONSIBILITIES OBJECTIVE 1. CLARIFY JURISDICTIONAL RESPONSIBILITIES, TO ADDRESS GAPS AND ELIMINATE REDUNDANCY (INCLUDING ALL-RISK RESPONSES).

Responsibilities Strategy 1.1. Develop an approach that will provide wildfire protection to all land in Washington.

[17] Universal fire protection means that all land and all improvements will have fire protection services. These services would be required under legal authorities that do not exist today. The legislature would be asked to provide explicit direction on who would provide fire protection services and a funding mechanism.

Responsibilities Strategy 1.2. Develop an approach to address the tension associated with protecting structures versus protecting resources.

Responsibilities Strategy 1.3. Conduct a comprehensive statewide collaborative assessment to identify the best wildland fire protection provider for each geographical area.

Responsibilities Strategy 1.4. Collaborate with fire protection districts and municipal fire departments to formalize appropriate wildland fire protection responsibilities.

Responsibilities Strategy 1.5. Support and collaborate with fire protection districts and municipal fire departments that are interested in assuming wildland fire protection responsibilities but currently lack some of the resources to formally assume the responsibilities.

Responsibilities Strategy 1.6. Support fire service consolidation where appropriate.

Responsibilities Strategy 1.7. Consolidate dispatch responsibilities in areas of mixed jurisdictions, where appropriate.

Responsibilities Strategy 1.8. Help develop and implement a comprehensive all-risk incident response system in Washington and;

Responsibilities Strategy 1.9. Coordinate prescribed burning with other authorized burning.

RESPONSIBILITIES OBJECTIVE 2. DELIVER A COMPREHENSIVE AND COORDINATED FOREST PROTECTION PROGRAM.

Responsibilities Strategy 2.1. Evaluate state-wide forest protection activities and programs to identify gaps or redundancies.

Responsibilities Strategy 2.2. Educate the public, communities and local governments about their wildfire protection responsibilities and;

Responsibilities Strategy 2.3. Achieve uniform and accurate reporting of all wildland fires by all jurisdictions.

RESPONSIBILITIES OBJECTIVE 3. AFFECT LOCAL LAND USE DECISIONS SO THAT THE RESULT IS HEALTHY FORESTS AND FIRESAFE COMMUNITIES.

Responsibilities Strategy 3.1. Develop model wildfire protection ordinances.

Responsibilities Strategy 3.2. Advocate land use planning that leads to healthy forests, wildfire protection and firesafe communities and;

Responsibilities Strategy 3.3. Comment on proposals that impact wildfire protection during State Environmental Policy Act (SEPA) review.

RESPONSIBILITIES OBJECTIVE 4. MINIMIZE POTENTIAL NEGATIVE IMPACTS THAT INDIVIDUAL LANDOWNER ACTIONS HAVE ON ADJOINING PROPERTIES.

Responsibilities Strategy 4.1. Develop incentives for landowners to actively participate in wildfire protection activities and;

Responsibilities Strategy 4.2. Provide state-funded wildfire protection assistance to landowners.

RESPONSIBILITIES OBJECTIVE 5. MINIMIZE ADVERSE IMPACTS TO STATE- PROTECTED PROPERTIES FROM WILDFIRES ON ADJACENT FEDERAL LANDS.

Responsibilities Strategy 5.1. Actively participate in federal land use, planning processes and fuel reduction to effect positive changes.

Responsibilities Strategy 5.2. Complete Community Wildfire Protection Plans for communities at risk by June 30, 2008.

Responsibilities Strategy 5.3. Develop local operating plans with partnering agencies to include pre-suppression agreements, reciprocal agreements and contingency plans and;

Responsibilities Strategy 5.4. Coordinate and prioritize fuel reduction projects on lands protected by the DNR.

RESPONSIBILITIES OBJECTIVE 6. SUPPORT FUNDING FOR FIRE DISTRICT IMPLEMENTATION OF ALL STATUTORY RESPONSIBILITIES.

Responsibilities Strategy 6.1. Support funding for wildfire-related training, equipment acquisition and maintenance.

Responsibilities Strategy 6.2. Promote and fund existing authorities to assist fire department programs and;

Responsibilities Strategy 6.3. Coordinate funding requests for comprehensive wildland fire protection.

Partnership Goal: Enhance the state's wildland fire protection efficiency and effectiveness through collaborative partnerships (both traditional and new).

Strategic and tactical significance of the Goal its supporting Objectives and Strategies

Only partnerships can provide the type and levels of wildfire protection needed in Washington. Analyzing the cost effectiveness of various entities, both governmental and private sector, will create solutions that save money and provide better services.

All larger fires are fought using the Incident Command System Management Teams and resources that are composed of inter-agency and (usually) contractor resources. Identifying the appropriate number and composition of the Teams is necessary to restore equitable participation among all the partners, both for wildfire and all-risk incidents such as Hurricane Katrina.

Washington's increasing population will create the need for more formal fire protection agreements between fire districts and DNR. In such locations, DNR's role will shift from being a primary initial attack agency to providing technical and other types of assistance.

Helping people understand the role of fire in Washington's forests and its connection to forest health is a major educational need. This and other needs can best be met using traditional and new partners to both educate and improve the marketing of forest-related products and value-added industries.

Wildfire risks and forest health risks should be acknowledged. These factors should become a consideration in setting insurance rates. The same factors should be legally disclosed prior to closing any realty transaction on or adjacent to forestland. Such disclosures would allow landowners to understand possible corrective actions or to knowingly accept known risks.

Supporting Objectives and Strategies

PARTNERSHIP OBJECTIVE 1. DELIVER EFFECTIVE COST-EFFICIENT WILDFIRE PROTECTION THROUGH THE USE OF PARTNERSHIPS.

Partnership Strategy 1.1. Analyze the cost efficiency of various resources, including private sector, state, tribal, local, and federal sources.

Partnership Strategy 1.2. Evaluate the appropriate use of contractors for initial attack, extended attack, large fires, and fire management.

Partnership Strategy 1.3. Use partnerships to achieve successful initial attack.

Partnership Strategy 1.4. Evaluate current and potential partnerships to avoid duplication.

Partnership Strategy 1.5. Develop coordinated dispatch functions with a single contact point for contract resources.

Partnership Strategy 1.6. Evaluate cost effectiveness, levels of risk and trade-offs associated with interagency participation in the DNR's wildfire protection and all-risk responsibilities.

Partnership Strategy 1.7. Identify the appropriate number and composition of Incident Management Teams and;

Partnership Strategy 1.8. Enter into formal fire protection agreements with entities with mutual interests.

PARTNERSHIP OBJECTIVE 2. DEVELOP EFFECTIVE PARTNERSHIPS TO IMPROVE THE PUBLIC'S UNDERSTANDING AND ACCEPTANCE OF FIRE'S APPROPRIATE AND NECESSARY ROLE IN WASHINGTON'S FORESTS.

Partnership Strategy 2.1. Develop a cooperative public relations campaign, building on the principles of "Keep Washington Green."

Partnership Strategy 2.2. Identify and explore non-traditional partnership opportunities with groups such as The Nature Conservancy, Washington State University and the Rural Technology Initiative (U of W) and;

Partnership Strategy 2.3. Inform the legislature and local leaders.

PARTNERSHIP OBJECTIVE 3. PROMOTE FOREST HEALTH AND PROTECT COMMUNITIES FROM WILDFIRE BY PARTNERSHIPS THAT RECOGNIZE ACTIONS OF INDIVIDUALS, GOVERNMENTS AND ORGANIZATIONS.

Partnership Strategy 3.1. Develop a better connection between forest/rural landscapes and the increasingly urbanized population.

Partnership Strategy 3.2. Improve the marketing of forest-related products and value-added local industries.

Partnership Strategy 3.3. Promote the state's Forest Stewardship Program as a solution to communication, education and landowner assistance needs and;

Partnership Strategy 3.4. Create key messages about wildfire protection.

PARTNERSHIP OBJECTIVE 4. DEVELOP PARTNERSHIPS THROUGH COOPERATIVE ACTIONS.

Partnership Strategy 4.1. Encourage the consideration of forest health risks and fire risks in setting insurance rates and;

Partnership Strategy 4.2. Explore forest health and fire risk disclosure processes to be used prior to closing any realty transaction that is on or adjacent to forest land.

PARTNERSHIP OBJECTIVE 5 EVALUATE, RECOGNIZE, AND CELEBRATE PARTNERSHIPS BY:

Partnership Strategy 5.1. Develop a process to evaluate whether DNR's partnerships are furthering mutual objectives and;

Partnership Strategy 5.2. Develop a formal process to recognize effective partnerships.

Wildland Protection Goal: Protect Washington's forests to maintain economic, ecological and social values such as viable forest industries, watersheds, community stability, wildlife habitat and a sense of place.

Strategic and tactical significance of the Goal and its supporting Objectives and Strategies

Humans cause about 85 percent of all fires on DNR-protected forest lands. Prevention efforts should be focused on human-caused fires most likely to be the largest and most costly to contain.

Implementing the 2004 Forest Health Strategy Plan will reduce the number and severity of wildfires. While the reduction will not be immediate, it is possible to target high-fire-risk areas first, supported by a multi-agency regulatory program for fire protection. The Wildland Fire Protection Strategic Plan and this Goal seeks to protect wildlands by preventing fires through forest health principles, Firewise-communities and community wildfire plans.

Steps to minimize net costs include:

- Deploying the optimum mix of wildfire prevention and preparedness resources;
- Allocating resources by using analytical and predictive models; and
- Measuring the effectiveness of wildland fire protection activities.

To ensure the appropriate mix of people, equipment and agreements are in place at the right time, the DNR will:

- Analyze the costs and effectiveness of all resources, whether governmental or private, to create the "best value;" and
- Assess the best means for providing wildland fire protection for each geographic area.

For safety and fiscal reasons, there must be an adequate number of well-trained people available on a sustained basis. This can be achieved through careful successional planning; reduction of institutional barriers that impede participation in the fire programs across all partnerships; and equitable participation by local, state, and federal agencies.

Keeping fires small requires effective and aggressive initial attack. This requires the right fire fighting resources available where and when needed, and an effective means for dispatching them. Effective use of technology, such as an integrated geographic information system (GIS) data layer, can improve dispatch and planning. This will mean smaller fires with reduced suppression costs and less resource damage.

Supporting Objectives and Strategies

PROTECTION OBJECTIVE 1. CONTROL NINETY-FIVE PERCENT OF ALL WILDFIRES ON DNR-PROTECTED WILDLANDS AT LESS THAN TEN ACRES.

Protection Strategy 1.1. Focus fire prevention emphasis in places and times where human-caused fires have the likely potential to be largest and most damaging.

Protection Strategy 1.2. Ensure effective fire detection and fire danger evaluation by utilizing appropriate technology and;

Protection Strategy 1.3. Ensure initial attack resources are effectively assigned and pre-positioned on an anticipated-need basis.

PROTECTION OBJECTIVE 2. REDUCE WILDFIRE OCCURRENCE AND SEVERITY.

Protection Strategy 2.1. Implement the 2004 Forest Health Strategy Plan.

Protection Strategy 2.2. Target high fire risk areas for forest health activities.

Protection Strategy 2.3. Develop a multi-agency regulatory program for fire protection.

Protection Strategy 2.4. Develop youth and adult fire prevention education programs and;

Protection Strategy 2.5. Promote personal responsibility for preventing fires through the use of forest health principles, Firewise-communities and community wildfire plans.

PROTECTION OBJECTIVE 3. EFFECTIVELY ALLOCATE DNR RESOURCES FOR WILDFIRE PREVENTION, PREPAREDNESS AND SUPPRESSION.

Protection Strategy 3.1. Use the optimum mix of wildfire prevention and preparedness efforts to minimize net costs.

Protection Strategy 3.2. Adopt appropriate wildland fire protection decision making tools for allocating resources and;

Protection Strategy 3.3. Measure the effectiveness of wildland fire protection activities.

PROTECTION OBJECTIVE 4. ENSURE AN APPROPRIATE MIX OF PEOPLE, EQUIPMENT AND AGREEMENTS ARE IN THE RIGHT PLACE AT THE RIGHT TIME.

Protection Strategy 4.1. Analyze the effectiveness and cost efficiency of various resources, including contractors, tribal, federal, local and state sources.

Protection Strategy 4.2. Create a comprehensive statewide assessment to identify the best solution for wildland fire protection for each geographic area.

Protection Strategy 4.3. Ensure availability of appropriate providers and resources.

Protection Strategy 4.4. Maintain effective relationships with contractor associations, contractors, PNWCG, Northwest Compact, State Fire Defense Committee, and other formal interagency groups.

Protection Strategy 4.5. Execute appropriate agreements to complement and supplement DNR's wildland fire protection and;

Protection Strategy 4.6. Implement a system for regular re-assessment and reallocation of resources.

PROTECTION OBJECTIVE 5. ENSURE THAT ADEQUATE NUMBERS OF WELL-TRAINED PEOPLE ARE AVAILABLE ON A SUSTAINED BASIS.

Protection Strategy 5.1. Implement successional planning within the DNR that recognizes the appropriate use of contractors and other agencies;

Protection Strategy 5.2. Acknowledge that each DNR employee has the responsibility to directly or indirectly support the fire program and ensure they understand this responsibility and their role in the fire program and;

Protection Strategy 5.3. Strive to achieve equitable participation in the fire program by local, state and federal agencies.

PROTECTION OBJECTIVE 6. ACHIEVE OPTIMAL INITIAL ATTACK, THROUGH COORDINATED ACTIONS BY:

Protection Strategy 6.1. Improve planning and suppression actions through using an integrated GIS forest land data layer.

Protection Strategy 6.2. Improve dispatch through the effective use of technology and;

Protection Strategy 6.3. Use a continuous improvement program to incorporate emerging technologies.

Financial Goal: Wildfire protection is achieved at the lowest net cost to taxpayers and landowners.

Strategic and tactical significance of the Goal and it supportive Objectives and Strategies

The Financial Goal calls for full consideration of net costs, not simply suppression costs. The Forest Health Strategy Work Group[18] identified how investments in forest health and fuel reductions save taxpayers money while protecting landowner property and protecting public resources. Some of the first steps include the following:

- Developing standard methodology to quantify wildfire resource damage;
- Incorporating non-market cost and avoided cost concepts in the development of forest health and wildfire prevention, preparedness and suppression activities;

[18] See Appendices C and D for details.

- Minimizing large fires by having an effective forest health program, a prevention program and aggressive initial attack; and
- Developing an analytical model to assess forest protection and staffing needs.

Keeping fires small saves millions of dollars. When there are wildfires, cost containment is a major consideration. All DNR fires have built-in cost containment practices. All DNR fires are investigated, seeking cost recovery for all negligent fires.

A reduction in fuel loading is a necessary step to long-term forest health. There is a direct correlation between fuel loading and a series of critical factors such as suppression costs, resource damage and public and firefighter safety. Identifying and developing economically viable utilization of forest materials is central to successfully reducing dangerously high fuel loading.

Supporting Objectives and Strategies

FINANCIAL OBJECTIVE 1. INCORPORATE COST CONTAINMENT IN DECISION MAKING ON LARGE FIRES.

Financial Strategy 1.1. Implement cost containment strategies through the Agency Administrator's Delegation of Authority and wildfire protection actions.

Financial Strategy 1.2. Use planning tools that analyze the fiscal impacts of alternatives and;

Financial Strategy 1.3. Identify high cost items and their appropriate use.

FINANCIAL OBJECTIVE 2. INVESTIGATE ALL FIRES AND PURSUE COST RECOVERY FOR ALL NEGLIGENT FIRES.

Financial Strategy 2.1. Implement fire suppression cost recovery strategies and;

Financial Strategy 2.2. Ensure the availability of an adequate number of well-trained fire investigators and cost recovery specialists.

FINANCIAL OBJECTIVE 3. REDUCE SUPPRESSION COSTS AND RESOURCE LOSS BY MAKING WISE SPENDING DECISIONS.

Financial Strategy 3.1. Minimize large fires by implementing an effective forest health program, an effective prevention program and aggressive initial attack.

Financial Strategy 3.2. Respond to changing conditions by adjusting the number and type of resources.

Financial Strategy 3.3. Eliminate duplication of wildfire protection services.

Financial Strategy 3.4. Develop suppression procurement authorities that allow more cost effective decisions (e.g., purchase versus renting) and;

Financial Strategy 3.5. Use the most cost efficient and effective resources.

FINANCIAL OBJECTIVE 4. OPTIMIZE ALLOCATION OF AVAILABLE FUNDING BY COORDINATING AMONG AGENCIES, LANDOWNERS AND COMMUNITIES.

Financial Strategy 4.1. Seek appropriate new funding sources.

Financial Strategy 4.2. Develop strategies to eliminate overlap or duplication and;

Financial Strategy 4.3. Enhance the use of local operating plans.

FINANCIAL OBJECTIVE 5. APPLY LOWEST NET COST APPROACHES THAT ACHIEVE ALL POLICY OBJECTIVES FOR BOTH BUDGET DEVELOPMENT AND OPERATIONS.

Financial Strategy 5.1. Develop and implement an analytical model for assessing wildfire protection and staffing needs and;

Financial Strategy 5.2. Quantify avoided costs and their impact on management actions and wildland fire protection.

FINANCIAL OBJECTIVE 6. ENSURE STABLE AND EQUITABLE FUNDING FOR FOREST HEALTH AND WILDFIRE PREVENTION, PREPAREDNESS AND SUPPRESSION.

Financial Strategy 6.1. Improve wildland fire protection by better analyzing resource damage, fire causes, land conditions, fire costs and resources at risk.

Financial Strategy 6.2. Include non-market costs in the development of forest health and wildfire prevention, preparedness and suppression activities and;

Financial Strategy 6.3. Recommend a funding system and budgets for wildland fire protection that reflects risks, current land use patterns and resource conditions.

FINANCIAL OBJECTIVE 7. COLLABORATE WITH APPROPRIATE ENTITIES TO REDUCE FUEL LOADING THROUGH ECONOMICALLY VIABLE UTILIZATION OF FOREST MATERIALS.

Financial Strategy 7.1. Promote the development of markets for small diameter wood.

Financial Strategy 7.2. Identify grants to help finance forest biomass and small-wood conversion facilities.

Financial Strategy 7.3. Identify financial incentives to reduce hazardous fuel loading and;

Financial Strategy 7.4. Promote forest biomass use by providing information and technical assistance to entities with responsibility for developing alternative fuel and energy programs.

Chapter 5

Implementation Plan and Continuous Improvement

Strategic plans frequently fail due to a lack of an implementation plan and support from the executive leaders. Without a clear structure with appropriate authorities, responsibilities and a timeline for key events, many strategic plans become "shelf art" that produces costly documents that achieve little.

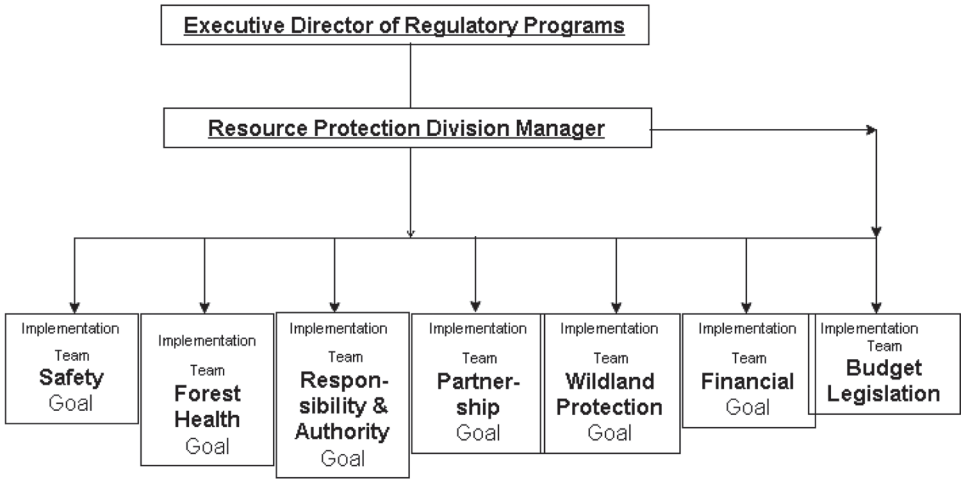
Equally important are monitoring and feedback loops that periodically evaluate progress towards the preferred future. Much of the plan is based on where we sense Washington State will be in 2020. This dependency requires monitoring actual versus forecasted trends. Tactical and strategic direction will need to change as both the internal and external environment change. This adaptive component is central to effective and efficient wildland fire protection, ensuring appropriate use of both budget and policy.

Proposed time lines and accountabilities

Figure 10 identifies the overall implementation structure. Six Implementation Teams will focus on the Strategic Plan Goals (one goal per team). An additional Team will work on associated budget and legislative issues. To ensure success, the Implementation Teams will report directly to the Resource Protection Division Manager with active involvement of the Executive Director of Regulatory Programs. The Director of Regulatory Programs will formally approve staff assignments to and the work plans for each Implementation Team.

The six teams working on implementing Strategic Plan Goals will be co-chaired by various members of the DNR's Internal Working Group that did the detailed work on the Strategic Plan. To improve continuity and connection between policy and operations, one co-chair will be from the Resource Protection Division while

Figure 10 — Strategic Plan Implementation Structure



the other co-chair will be one of the Resource Protection & Services Assistant Region Managers or the Type 2 Incident Commander. Each Implementation Team will develop a detailed work plan that is based on the Objectives and Strategies for the specific Goal.

The Budget and Legislation Implementation Team will have a single chair, the Resource Protection Division Manager. Also on this team will be a Region Manager and the DNR's Budget Director or designee. Their work will focus on analyses of current budgets and law and the necessary changes to implement the Strategic Plan.

Each Implementation Team will develop a communication plan to appropriately involve DNR's wildland fire protection partners. DNR will also ask External Advisory Committee members if they wish to participate in the more detailed Implementation Teams.

The Implementation Team Co-chairs will select additional DNR employees to complete the teams. Each team's members will be accountable to their co-chairs for timely participation in the ongoing Team assignments. The Executive Director of Regulatory Programs will approve the appointments to the various Implementation Teams. Implementation sub-teams will be formed as necessary. Any workload conflicts will be resolved by the Executive Director of Regulatory Programs.

Table 1 provides a high-level summary of the pending work before each Implementation Team. Outside of the Budget and Legislation Implementation Team, there are

- **6 Goals,** with a combined total of
- **34 Objectives,** with a combined total of
- **134 Strategies.**

As the Teams analyze the 134 Strategies, there usually will be several tasks, specific implementing actions, for each of the Strategies. The complexity and magnitude of the various interactions for the literally hundreds of actions reinforce the need for a highly structured approach to implementation, which will span several years, many internal programs and will draw the attention of a large number of interest groups and the Legislature. Project management during the initial phases will be particularly critical.

Table 1: Summary of Implementation Team Work Plan Responsibilities

Implementation Team	*Safety*	*Forest Health*	*Responsibility & Authority*	*Partnership*	*Wildland Protection*	*Financial*	*Budget & Legislation*
Objectives	*6*	*6*	*6*	*5*	*6*	*7*	**Scope of Work to be Developed**
Strategies	*23*	*28*	*23*	*15*	*23*	*22*	

Project Management and Performance Measurement

The Financial Goal calls for achieving forest protection at the lowest net cost to taxpayers and landowners. To be effective and efficient in achieving this and all the other Goals requires rigorous management of several hundred concurrent tasks.

Early work on the specific tasks and actions will enable DNR to identify performance measures, an important part of project management. While it may not be possible or cost-effective to create performance measures for each of the 168 Objectives and Strategies, let alone the hundreds of additional tasks underneath these, DNR will specify performance measures for the major activities.

To support continuous monitoring and improvement, each of the seven Implementation Teams will use Table 2 or its functional equivalent. The content of Table 2 is a sample, illustrating how the table format can be used. Because implementation items below the

Strategy level (such as specific tasks) have not yet been developed, they are only identified here with "placeholder" numbers. The sample Table 2 was developed for the Financial Goal and one of its Objectives. In actual use, a separate table could be prepared for each objective of each goal.

Table 2: Sample Project Management and Performance Measurement Tracking, by Goal and by Objective

Strategic Plan Financial Goal: Forest protection is achieved at the lowest net cost to taxpayers and landowners by

Financial Objective 6: Ensuring stable and equitable funding for forest health and wildfire prevention, preparedness and suppression by

Strategy	Tasks	Priority	New RCW or WAC	Staffing Impact	Funding Implications	Funding Sources	Implementation Challenges	Performance Measures
Strategy 6.1. Improving resource protection budgets by better analyzing resource damage, fire causes, land conditions, fire costs, resources at risk								
	6.1.1: To be developed							
	6.1.2: and others to be developed							
Strategy 6.2. Incorporating non-market cost concepts in the development of forest health and wildfire prevention, preparedness and suppression activities								

Table Note: A similar approach would be used for all Goals, all Objectives and all Tasks. The finalized tracking form will include milestone dates to establish performance targets and increase accountability.

Generally, most performance measures will be at the goal and objective levels. Implementation details will be monitored through the use of project milestones.

Annual Reporting

Annually, in December, DNR will issue a "Resource Protection Program Summary" that will outline the major implementation successes or problems that were encountered. It will report on continuous improvement actions, performance measurement and overall progress towards achieving the Preferred Future.

Monitoring the bigger picture - critical dependencies and assumptions

Many factors shape the understanding and preference for the future of DNR's role in wildland fire protection. These factors and the department's Fire Mission and Values statements provide the context for the future. Core assumptions, based upon trends and forces now in play or likely to be in play in the near future in the world and in the state, permit us to envision a future for 2020.

To start the 2020 Wildland Fire Protection Strategic Plan, it was initially necessary to accept that the core forest wildfire protection laws will exist in essentially their current form, including the existing limits on DNR responsibilities relative to protecting improved property. However, it is now clear that a number of changes in state law could increase economic, social, public health and ecological benefits.

There may be other changes in macro-economic forces, societal needs and climate that could, over time, modify the strategic direction found in the 2020 Wildland Fire Protection Strategic Plan and the wildland Fire Protection Report.

DNR understands the need to continuously monitor these issues, making timely changes in a manner that is respectful of the diversity of opinions and interests.

Appendices

Appendix A. A Primer Relating to Forests, Forest Health, and Wildland Fire Protection on Lands Protected by the State of Washington"

Appendix B. Advisory Committee Charter & Membership

Appendix C. Market and Non-market Values, abstracted from Appendix 5,"*Desirable Forest Health Program for Washington's Forests*"

Appendix D. Cash flow and Avoided Costs, abstracted from Appendix 6 "*Desirable Forest Health Program for Washington's Forests*"

Appendix E. Role of Contractors

Appendix F. Successional Planning

Appendix G. "Forest Health and Wildfires, a Net Cost Approach….", DNR document that will be published

Appendix H. Substitute Senate Bill 6603

Appendix I. The Future in 2020

Appendix J. Wildfire "Types:" How the DNR Responds to wildfires